

Before the  
**PUBLIC SERVICE COMMISSION OF UTAH**

In the Matter of the Petition of  
QWEST CORPORATION for Pricing  
Flexibility for Residence Services in  
the Areas Served by 44 Central  
Offices

**Docket No. 03-049-49**

**Direct Testimony**

**of**

**LEE L. SELWYN**

**on behalf of the**

**Utah Committee of Consumer Services**

**September 29, 2003**

**PUBLIC VERSION**

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INTRODUCTION

**Qualifications**

Q. Please state your name, position and business address.

A. My name is Lee L. Selwyn; I am President of Economics and Technology, Inc., Two Center Plaza, Suite 400, Boston, Massachusetts 02108. Economics and Technology, Inc. is a research and consulting firm specializing in telecommunications economics, regulation, management and public policy.

Q. Please summarize your educational background and previous experience in the field of telecommunications regulation and policy.

A. I have prepared a Statement of Qualifications, which is attached as Attachment 1 hereto.

Q. Have you testified in other matters before the Utah Public Service Commission?

A. Yes. My first appearances before this Commission were on three occasions in the early 1980s. In 1981, I provided testimony in Docket No. 80-049-01 concerning the rate design proposals of Mountain States Telephone and Telegraph Company (the

1 predecessor to Qwest-Utah, a/k/a “Mountain Bell”) for terminal equipment, key  
2 systems, Centrex, and private lines, on behalf of the State of Utah Department of  
3 Finance, University of Utah, Utah State University, Weber State College, and Brigham  
4 Young University. In 1982, I provided further testimony on Mountain Bell rate design  
5 issues in Docket No. 81-049-11, on behalf of the same group of clients, and appeared  
6 for that group once again in 1984, when I testified in Docket No. 84-049-01 regarding  
7 business local exchange service rate design issues.

8  
9 In 1999, my firm was engaged by the Division of Public Utilities (“Division”) to assist in  
10 the development of a price caps plan in conformance with Utah Code Section  
11 54-8b-2.4-5(a) (the recently-enacted price cap regulation statute) that could be applied  
12 to the regulated intrastate services of Qwest’s predecessor, US West Communications  
13 Inc. (“US West” or “USWC”). ETI’s final report, *Price Cap Plan for USWC:  
14 Establishing Appropriate Price and Service Quality Incentives in Utah* (March 22, 2000)  
15 served as the basis for the Division’s price cap recommendations to the Commission.  
16 The Commission ultimately adopted a price cap plan closely modeled on the Division  
17 plan in Docket 00-999-04, and the plan became effective for USWC on June 15, 2001.

18  
19 In October 2001, Qwest sought a change in the productivity factor applied in its price  
20 cap plan, which led the Commission to open Docket No. 01-049-78. I submitted  
21 testimony in that proceeding on behalf of the Division, which responded to Qwest’s

1 request and provided an update to the total factor productivity evidence submitted in  
2 ETI's March 2000 report.

3  
4 Also in 2001, I submitted direct and rebuttal testimony in Docket No. 00-999-05 on  
5 behalf of Pac-West Telecomm, Inc. and XO Communications, Inc. on the subject of  
6 intercarrier compensation.

7  
8 **Assignment**  
9

10 Q. By whom were you engaged, and what was your assignment in this proceeding?

11  
12 A. ETI has been engaged by the Utah Committee of Consumer Services ("Committee")  
13 to provide expert assistance and analysis with respect to the issues raised by Qwest's  
14 *Petition for Pricing Flexibility for Residence Services*<sup>1</sup> and Qwest's supporting testi-  
15 mony, and to present testimony before this Commission setting forth the results of that  
16 analysis.<sup>2</sup> ETI was asked to address the economic issues raised by Qwest's petition,

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1. Before the Public Service Commission of Utah, *In the Matter of the Petition of QWEST CORPORATION for Pricing Flexibility for Residence Services in the Areas Served by 44 Central Offices*, Qwest's Petition for Pricing Flexibility for Residence Services, July 1, 2003 ("Qwest Petition").

2. ETI's engagement by the Committee also encompasses provision of expert assistance and analysis relating to Qwest's parallel pricing flexibility petition for certain business services, which is addressed in separate prefiled testimony.

1 and to respond specifically to the testimony of Qwest's witness David L. Teitzel<sup>3</sup>  
2 concerning application of a price cap, pursuant to Utah Code Ann. § 54-8b-2.3(8), to  
3 residential services for which the Commission determines that Qwest should be  
4 granted pricing flexibility.

5  
6 **Summary of Testimony**  
7

8 Q. Please summarize the testimony you are presenting at this time.

9  
10 A. On July 1, 2003, Qwest filed a Petition that asked the Commission to grant it pricing  
11 flexibility pursuant to Utah's pricing flexibility statute, Utah Code Ann. § 54-8b-2.3, for  
12 most of its residential services as offered in 44 exchanges in the state. If pricing flexi-  
13 bility were to be granted, those services in the 44 exchanges would be detariffed, and  
14 Qwest would be able to offer the services on the basis of a price list, by which Qwest  
15 could unilaterally raise or lower its prices without restraint by the Commission.

16  
17 The Committee of Consumer Services is offering the expert testimony of two witnesses  
18 to respond to Qwest's Petition. Mr. William Dunkel addresses the issue of whether  
19 Qwest has satisfied the statutory conditions for obtaining pricing flexibility. My testi-  
20 mony addresses the issue of whether the Commission should apply a maximum price  
21 limitation or "price cap," pursuant to Utah Code Ann. § 54-8b-2.3(8), to any of the

---

3. Direct Testimony of David L. Teitzel for Qwest Corporation, July 1, 2003 ("Teitzel (Qwest)").

1 services and exchanges that the Commission may determine have qualified for pricing  
2 flexibility.

3  
4 As an economic matter, the purpose of such pricing flexibility would be to allow Qwest  
5 to respond to price competition posed by new entrants (competitive local exchange  
6 carriers or "CLECs"). The ability to adjust price-listed rates is less targeted than  
7 customer-specific contracts (which are also permitted under a grant of pricing flexi-  
8 bility), but also allows Qwest to meet lower prices that might be offered by new entrants  
9 seeking to lure away Qwest's retail customers or to sign up new customers that might  
10 otherwise choose Qwest's services. Thus, if Qwest was facing pressure from com-  
11 petitors to offer lower rates than those in its tariffs, one would expect to see at least  
12 some price-listed services with rates lower than the currently effective tariffed rate.

13  
14 In fact, however, Qwest has generally employed its prior grants of pricing flexibility to  
15 escape from the requirement to implement rate reductions that would otherwise be  
16 occurring under the operation of the Commission's price cap regulatory framework.  
17 Those price cap driven rate reductions are being reflected in Qwest's tariffs, but do not  
18 apply to any services for which Qwest has thus far obtained pricing flexibility.  
19 Consequently, Qwest's charges for services subject to pricing flexibility are actually  
20 *higher* than the rates for the corresponding services that have not been detariffed. I  
21 present a comparison of Qwest's price-listed rates for business services under flexible  
22 pricing to its current tariffed rates, and show that Qwest typically charges *more* for  
23 those services under its price list than for similar services that remain subject to tariffs.



1 Moreover, *none* of those services have a price-listed rate that is lower than the current  
2 tariff rate, as one would expect if pricing flexibility were actually being used by Qwest  
3 to respond to price pressure from competing service providers rather than simply as  
4 a device to extricate itself from annual price cap rate decreases.

5  
6 In general, the differences between the price-listed rates and the current tariffed rates  
7 that I have identified reflect the fact that price-listed rates are exempt from the opera-  
8 tion of the price cap framework applied to other Commission-regulated services of the  
9 Company. Because that price cap plan includes a significant productivity factor to  
10 reflect achievable productivity gains by the Company, the annual operation of the price  
11 cap has caused Qwest's tariffed rates to fall in aggregate by a few percent per year  
12 since it was implemented in 2001. In contrast, Qwest has simply held its rates in the  
13 price list constant over time, so that they have been steadily increasing relative to the  
14 tariffed rates. This has resulted in the perverse and (presumably) unintended situation  
15 that consumers in purportedly "competitive" exchanges are being forced to pay more  
16 for their Qwest services than do consumers in the presumably noncompetitive  
17 exchanges subject to price cap regulation. This kind of pricing behavior cannot be  
18 justified by Qwest as any valid "competitive response" to pricing pressure from CLECs.  
19 Instead, Qwest is simply using pricing flexibility to evade the operation of the price cap  
20 formula and the overall price decreases it demands in order to recognize achievable  
21 net annual improvements in the Company's productivity.

1 I have also reviewed the evidence on competitive activity that is provided in Mr.  
2 Teitzel's prefiled testimony in this proceeding. I find that the evidence of competitive  
3 entry for residential services that he has presented falls far short of what would be  
4 needed to demonstrate that residential competition has developed sufficiently to con-  
5 strain Qwest's pricing of its residential local service offerings to just and reasonable  
6 levels. Nowhere in his testimony does Mr. Teitzel specifically address, let alone  
7 provide evidence concerning, the issue of whether Qwest continues to hold market  
8 power with respect to its residential services, i.e., the ability to raise prices without  
9 suffering a serious loss of consumer demand for its services.

10  
11 To answer that question, three types of evidence must be presented and evaluated,  
12 namely evidence concerning *market share*, *demand elasticity*, and *supply elasticity*.  
13 I present an analysis of each of these factors, and conclude that Qwest continues to  
14 possess significant market power for residential exchange services throughout the 44  
15 exchanges, so that a Commission-prescribed price cap is warranted.

16  
17 First, I have analyzed Qwest's market share for residential exchange services, based  
18 on June 30, 2003 access line counts provided by Mr. Teitzel. I estimate that Qwest's  
19 share of the aggregate market is at least 87.0%, and likely approaches 90%. I also  
20 have evaluated the degree of market concentration using the standard economic mea-  
21 sure known as the Herfindahl-Hirschman Index ("HHI"). I find that the HHI for the resi-  
22 dential exchange market overall is well over 7,000. This value is far beyond the 1,800  
23 minimum threshold for a "highly concentrated market" applied by the 1992 United

1 States Department of Justice/Federal Trade Commission Horizontal Merger Guide-  
2 lines. Moreover, given that the Commission has stated that a market's HHI value must  
3 be below 5,000 "to begin to be considered somewhat competitive,"<sup>4</sup> the residential  
4 market as a whole fails to satisfy even that more liberal guideline. These results  
5 indicate that there is little chance that the market is sufficiently competitive to constrain  
6 Qwest's residential service price levels absent continued regulatory protections.

7  
8 These conclusions remain the same when Qwest's market share and market concen-  
9 tration (HHI) are analyzed on a wire center-by-wire center basis. Using the counts of  
10 competitive line loss reported by Mr. Teitzel (as of June 30, 2003), I have calculated  
11 conservative, lower-bounds estimates of HHIs by wire center based solely upon  
12 Qwest's market share in each exchange. I have found that Qwest continues to hold  
13 an effective market share of 98% or above in twenty of the 44 exchanges. For another  
14 eleven of those exchanges, its market share exceeds 90%. Only two show an effective  
15 market share below 65%: BEGIN PROPRIETARY0<<

16 >>END PROPRIETARY And for every one of the 44 exchanges, the HHI  
17 value is far in excess of the 1,800 threshold for a finding under the Horizontal Merger  
18 Guidelines of a "highly concentrated" market. Given these results, I conclude that  
19 Qwest continues to have a dominant share of the residential exchange services market

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4. *The Status of Telecommunications Competition in Utah*, Fifth Annual Report to the Governor, Legislature, the Public Utilities and Technology Interim Committee, and Information Technology Commission, November 2002 ("Fifth Annual Report"), at page 16. While the Commission's report expresses HHI values as decimals (e.g., 0.50), for consistency I have converted them into the scale used in the 1992 Merger Guidelines (e.g., 5000).

1 in each of the 44 exchanges at issue, which strongly supports a finding by the  
2 Commission that a price cap should be applied to constrain Qwest from potentially  
3 abusing its market power.

4  
5 These conclusions are corroborated by consideration of the elasticity of both demand  
6 and supply for residential exchange services. There are no indications that the de-  
7 mand elasticity for residential exchange services in Utah is sufficiently high to prevent  
8 Qwest from exercising its market power. On the supply side, CLECs' ability to expand  
9 output in the event of a unilateral price increase by Qwest has been greatly curtailed  
10 by their precarious financial condition and consequent lack of access to investment  
11 capital. Moreover, because of a narrow resale discount (12.2%) and relatively high  
12 UNE prices, using Qwest-provided wholesale services generally is not feasible as an  
13 economic matter. These circumstances exacerbate the supply constraints faced by  
14 CLECs, and thus contribute to the relatively inelastic supply conditions that they  
15 confront in Utah.

16  
17 Finally, I review and respond to the evidence presented by Mr. Teitzel concerning  
18 competition from wireless services. After analyzing differences in functionality, service  
19 quality, and scope and pricing of services, I conclude that wireless service is not a full  
20 economic substitute for Qwest's residential local exchange services. Accordingly, I find  
21 that wireless service cannot effectively constrain Qwest's price levels for its wireline  
22 residential exchange services.

1 In similar fashion, I consider two additional categories of service, namely bundled  
2 service offerings, and resold services. In each case, I explain why those services also  
3 are unable to constrain the prices of Qwest's residential exchange services.

4  
5 In conclusion, I find that despite the presence of *some* competition in the residence  
6 service market, Qwest's residential exchange services are not subject to effective,  
7 price-constraining competition at this time. As a result, Qwest remains the dominant  
8 supplier and price-setter in the market, and would have the opportunity and ability to  
9 exercise its market power and reap supracompetitive profits absent an appropriate  
10 regulatory protection. Qwest has used its existing pricing flexibility under such a cap  
11 only to escape from the operation of the price cap regulation rule. In order to prevent  
12 this from recurring in any of the 44 exchanges granted pricing flexibility, the price cap  
13 should be set equal to the corresponding tariffed rate in effect under the price cap  
14 regulation rule, as periodically adjusted by the Commission-approved annual price cap  
15 filings. This will ensure that residential consumers in any flexibly-priced exchanges will  
16 not end up paying higher prices in the putatively "competitive" exchanges than they  
17 would confront where such "competition" is not present.

## 1 APPLICATION OF PRICE CAPS TO FLEXIBLY-PRICED SERVICES

2  
3 **Qwest seeks not only to obtain pricing flexibility for residential services in 44**  
4 **Utah exchanges, but also to overturn the Commission's policy of establishing**  
5 **an upward pricing constraint (price cap) on services granted flexible pricing.**  
6

7 Q. Dr. Selwyn, what is your understanding of the specific actions that Qwest is asking the  
8 Commission to take in its *Petition for Pricing Flexibility for Residence Services*?

9  
10 A. Qwest filed its *Petition for Pricing Flexibility for Residence Services* ("Petition") on July  
11 1, 2003. In that Petition, Qwest asked the Commission to grant it pricing flexibility,  
12 pursuant to Utah's pricing flexibility statute for incumbent local exchange carriers  
13 ("ILECs"),<sup>5</sup> for most of its residential services as offered in 44 exchanges in the state.  
14 Residence local exchange service, Extended Area Service ("EAS"), and intraLATA toll  
15 service packages would all be affected. The local exchange services targeted for  
16 pricing flexibility include:

- 17  
18 • Monthly Dial Tone line rates;  
19 • Residential Flat Rate (unlimited usage package) charges;  
20 • Primary Interexchange Carrier ("PIC") Change fees;  
21 • Toll Restriction charges  
22 • Directory listings services

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5. Code Ann. § 54-8b-2.3(2)(b)(i).

- Call Forwarding, Call ID, and other custom calling features

A full listing of the residential services for which Qwest is seeking pricing flexibility is provided in Exhibit DLT-4 of Mr. Teitzel's prefiled testimony. The 44 exchanges at issue encompass the greater Salt Lake City exchanges and virtually all of Qwest's remaining service territory along the Wasatch Front, eight exchanges in the Provo MSA, and the Cedar City and St. George exchanges in the southwest corner of the state. A complete list of the 44 exchanges is provided at page 9 of Mr. Teitzel's prefiled testimony.

If pricing flexibility were to be granted, Qwest would be able to offer those services by means of a price list or a competitive contract. Each price list would have to describe the telecommunications service being offered, the basic terms and conditions of service, and list the prices to be charged.<sup>6</sup> While Qwest would be required to file its price lists and competitive contracts with the Commission,<sup>7</sup> it is my understanding that the Commission would not have any ability to review or alter the prices that Qwest establishes by those price lists or contracts,<sup>8</sup> and that Qwest could unilaterally change a

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6. Code Ann. § 54-8b-2.3(4).

7. Code Ann. § 54-8b-2.3(7).

8. I am not an attorney and am not offering a legal opinion. It does appear that under certain circumstances, the statute empowers the Commission to revoke the ILEC's authority to offer service via a price list or competitive contract, but such a step would be very different from regulatory oversight and adjustment of Qwest's prices per se. See Code Ann. § 54-8b-2.3(9).

1 price-listed rate simply by filing a new price list, which would take effect five days after  
2 it was filed with the Commission.<sup>9</sup>

3  
4 Q. Do you plan to address in your testimony the issue of whether Qwest has satisfied the  
5 statutory conditions for obtaining the pricing flexibility it seeks for residential services?

6  
7 A. No. William Dunkel has filed testimony on behalf of the Committee that addresses that  
8 issue.

9  
10 Q. Does Qwest's Petition address the issue of whether or not the Commission should  
11 apply a maximum price level or "price cap" to services that are granted pricing flexi-  
12 bility?

13  
14 A. Strictly speaking, no. Qwest's Petition does not make any reference to the issue of  
15 whether a price cap (maximum allowable price level) should be applied to services for  
16 which pricing flexibility is granted. However, Mr. Teitzel's prefiled testimony does  
17 address this issue, stating that "... Qwest is requesting that previously established price  
18 caps be removed and no new caps be established."<sup>10</sup> Thus, I assume that Qwest  
19 seeks to price those services free of any regulatory limitation on potential price  
20 increases.

---

9. Utah Code Ann. § 54-8b-2.3(6).

10. Teitzel (Qwest) at 15, lines 7-8.



1 Q. Has the Commission previously granted pricing flexibility for any Qwest services under  
2 the pricing flexibility statute?

3  
4 A. Yes. The Company's first filing for pricing flexibility under the statute related to busi-  
5 ness services in ten exchanges along the Wasatch front. In that case, the Commission  
6 found that Code Ann. § 54-8b-2.3(8) grants it the authority to set a price cap on a  
7 flexibly-priced service if it finds that doing so is necessary to protect the public  
8 interest.<sup>11</sup> While the Commission refrained from adopting a price cap for business  
9 services in that case, when Qwest subsequently sought pricing flexibility for its  
10 residential services in areas served by (then) AT&T Broadband, the Commission  
11 adopted a maximum price (which the statute refers to as a "price cap") for those  
12 services set equal to their then-current tariffed rates.<sup>12</sup> In the latter decision, the  
13 Commission concluded that:

14  
15 The current record reflects that Qwest has met the conditions for pricing  
16 flexibility set out by statute. The record is also clear that the likely ability  
17 of the "market forces" to perform the consumer protection function  
18 envisioned by the Legislature is remote at best.<sup>13</sup>

---

11. *In the Matter of the Petition of US WEST COMMUNICATIONS, INC., for Pricing Flexibility*, Docket No. 99-049-17, Report and Order, September 1, 2000, at Conclusion of Law number 7.

12. *In the Matter of the Application of AT&T Broadband Phone of Utah, LLC for a Certificate of Public Convenience and Necessity to Provide Switched and Dedicated, Resold and Facilities-Based Local Exchange and Resold and Facilities-Based Interexchange Services in the State of Utah*, Docket No. 01-2383-01 Report and Order, January 28, 2003, at Conclusion of Law number 5 and Ordering Paragraph number 6.

13. *Id.*, at page 6.

1 As I shall demonstrate later in my testimony, the Commission's latter conclusion is  
2 equally applicable to the Company's new Petition.

3  
4 Q. What does Qwest's request for the discretion to *increase* prices in markets that are  
5 ostensibly subject to competition suggest as to the actual degree of competition in  
6 those markets?

7  
8 A. Obviously, if Qwest was actually feeling pressure from competitors who are,  
9 presumably, offering services at lower prices, it would be reasonable for the Company  
10 to seek the flexibility to reduce its own prices in response. It is far less obvious, how-  
11 ever, that Qwest would need the ability to *increase* prices in response to competition  
12 *other than for the purpose of generating increased revenues from services that might*  
13 *nominally satisfy the threshold condition for pricing flexibility but for which actual effec-*  
14 *tive competition is not in fact present for the purpose of cross-subsidizing its lower*  
15 *prices for services that do confront actual competitive pressure.* The Commission can  
16 reasonably conclude that the only situation in which the Company would want the  
17 ability to *raise* prices is where it has the *economic* ability to do so, i.e., where there is  
18 no effective price-constraining competition in the market such that Qwest continues to  
19 enjoy a *de facto* monopoly. In such cases, there would be no economic basis for the  
20 Commission to afford Qwest the pricing flexibility it is seeking. Hence, in the event that  
21 the Commission determines that Qwest has met the statutory criteria for the residential  
22 pricing flexibility being sought in its Petition, it would be highly inappropriate to permit

any upward pricing flexibility, so that, at a minimum, a price cap equal to the current tariffed rates should be adopted.

**Qwest has not used its previously-granted pricing flexibility to offer lower prices in response to pricing pressure from competing service providers, but instead to escape from rate decreases due under the Commission's price caps regulatory framework.**

Q. Have you performed an analysis of how Qwest has used the pricing flexibility that the Commission has already granted to the Company?

A. Yes, I have.

Q. What is the purpose of that analysis?

A. When considering the potential need to limit upward pricing movements by means of price caps, it is essential that the Commission examine how Qwest has actually used the pricing flexibility that it already has been awarded. In fact, as I explain in more detail later in my testimony, the Commission specifically considered and relied upon evidence of Qwest's prior pricing behavior in its decision to impose a price cap in Docket No. 02-049-82.

As an economic matter, the purpose of pricing flexibility is to allow an ILEC such as Qwest to respond rapidly to price competition posed by new entrants. The pricing flexi-

1 bility permitted under the statute provides two main vehicles for this to occur, individual  
2 customer contracts and price lists. For example, when a business customer in Qwest's  
3 service territory negotiates both with Qwest and with alternative service providers for  
4 the best deal it can obtain on a significant quantity of access lines, pricing flexibility  
5 would allow Qwest to bid for that service on an equal footing with the CLECs, and offer  
6 a contract price that would be seen as comparable to what the CLECs could offer, even  
7 if it is significantly lower than the tariffed rate and is thus not being offered generally to  
8 all Qwest customers. The ability to adjust price-listed rates is less targeted, but also  
9 allows Qwest to respond to lower prices that might be offered by new entrants seeking  
10 to lure away Qwest's retail customers or to sign up new customers that might otherwise  
11 choose Qwest's services. Thus, if Qwest was facing pressure from competitors to offer  
12 lower rates than those in its tariffs, one would expect to see at least some price-listed  
13 services with rates lower than the currently effective tariffed rate.

14  
15 Q. Has Qwest been using its previously-granted pricing flexibility to offer lower price-listed  
16 rates than its tariffed rates?

17  
18 A. No, it has not. To the contrary, Qwest generally has employed its existing flexible  
19 pricing authority to escape the requirement for rate reductions that would otherwise  
20 arise under the operation of the Commission's price cap regulatory framework, R746-  
21 352. As a result, rates for services still subject to tariff have decreased (due to the  
22 operation of the price adjustment mechanism in the price cap plan), whereas the *de-*  
23 *tariffed* price list rates have remained unchanged. Put another way, since the purpose

1 of the price cap rate adjustment mechanism ( $GDP-PI - X$ ) is to flow-through to  
2 consumers Qwest's cost decreases resulting from productivity gains, prices that are  
3 permitted to escape this flow-through requirement (those subject to pricing flexibility)  
4 that remain unchanged are essentially a rate increase.<sup>14</sup>

5  
6 Table 1 below presents a comparison of Qwest's price listed rates for business  
7 services under flexible pricing with its current tariffed rates for the same services in  
8 areas in which pricing flexibility has not been permitted.<sup>15</sup> As shown in the table, Qwest  
9 typically charges *more* for the service under its price list than under its current tariffed  
10 rates. For example, Qwest's current tariffed rate for an individual Business Dial Tone  
11 line is \$14.00 in the Urban and Suburban exchanges, and \$16.00 in the Rural  
12 exchanges. Qwest's Price List disaggregates pricing for individual Business Dial Tone

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14. In the price cap mechanism, the GDP-PI (Gross Domestic Product Price Index) represents economy-wide price inflation, which is offset by a productivity factor ("X"), a factor intended to measure the amount by which the change in LEC productivity differs from the change in productivity for the U.S. economy as a whole plus the amount by which the change in input prices for the U.S. economy as a whole differs from the change in LEC input prices. The Commission prescribed the X-factor to be 4.955%. See Docket 01-049-78, *Report and Order*, issued December 31, 2001.

15. Even though Qwest's Petition at issue in this case involves residence services only, Qwest's pricing treatment of its business services is relevant because the basic purpose of the permitted pricing flexibility is the same regardless of the type of service. Moreover, Qwest has had business service pricing flexibility for almost three years, long enough to reveal its pricing patterns. Finally, as the Commission has recognized (*Id.*, at page 6), business markets generally have experienced more competitive entry than residence markets in Utah, so that one would expect any evidence of competitive price pressure — and use of flexible pricing in response — would emerge first in those business markets.

lines into three groupings of wire centers: Within all Group 1 exchanges, subscribers pay \$16.67 regardless of their Urban/ Suburban/Rural designation; all Group 2 exchanges pay \$16.00; and Group 3 exchanges pay \$16.00 for Urban and Suburban wire center, and \$16.67 for the Rural wire centers.

Table 1				
Qwest has not used pricing flexibility for business services to respond to competition with lower rates				
Business service	Tariffed Rate	Current Price from Price List		
		Group 1	Group 2	Group 3
Business Dial Tone Line				
Urban rate area	\$ 14.00	\$ 16.67	\$ 16.00	\$ 16.00
Suburban rate area	\$ 14.00	\$ 16.67	\$ 16.00	\$ 16.00
Rural rate area	\$ 16.00	\$ 16.67	\$ 16.00	\$ 16.67
Business Individual usage	\$ 2.59	\$ 2.70	\$ 2.59	\$ 2.59
Message Usage Trunks, Hotel (first and additional)	\$ 2.14	\$ 2.23	\$ 2.14	\$ 2.14
Trunk Message Unit Charge, per message unit	\$ 0.08	\$ 0.08	\$ 0.08	\$ 0.08
Flat Usage Trunks (subscribing to 50 or fewer Rate Stabilized PBX Trunks)	\$ 5.18	\$ 5.40	\$ 5.18	\$ 5.18
Direct Inward Dialing, In-only Analog Trunk	\$ 34.70	\$ 36.55	\$ 36.55	\$ 36.55
Sources: Qwest Exchange and Network Services Tariff; Qwest Price List (Utah)				

If Qwest were actually facing competition as it claims, one would expect it would *reduce* rates rather than raise them. However, in *none* of these cases is the price-listed rate *less* than the current tariffed rate. Table 1 shows that the same pattern holds true for Business Individual Usage, Flat-rate Usage Trunks, Hotel Message Usage Trunks, Direct Inward Dialing (“DID”) Trunks, and Trunk Message Unit charges.

1        Moreover, I have not found any counterexamples, i.e. cases in which Qwest has used  
2        its price list to lower the rate for a business service to a level below the effective tariffed  
3        rate. I reviewed the other rates and charges appearing in Qwest's business exchange  
4        services tariffs and price lists, and did not identify any other instances in which Qwest's  
5        price listed rate differed from the current tariffed rate.<sup>16</sup>

6  
7    Q. Did you also investigate the relationship between Qwest's price-listed residential  
8        services and the comparable tariffed rates?

9  
10   A. Yes, I did. However, I did not find any instances in which the price-listed rate for a resi-  
11        dence service varied from the current tariffed rate. Given that Qwest obtained its  
12        existing degree of residential pricing flexibility relatively recently (i.e., from the Docket  
13        No. 01-2383-01 order issued in January 2003), this may simply reflect that shorter  
14        interval. However, the absence of any exercise of that pricing flexibility certainly does  
15        not support a finding that Qwest needs expanded pricing flexibility for residential  
16        services.

17  
18   Q. For those cases in which a business service's price-listed rate is higher than the  
19        current tariffed rate, how did those differences come about?

---

16. For example, for Business Extended Area Service ("EAS"), no changes to Flat Usage or Message Usage service EAS rates have occurred under the pricing flexibility granted on September 1, 2000. Compare Qwest's Exchange and Network Services Tariff Section 5.1.1, archived 10/10/00 (eff. date 1/5/98), to the current Price List, Section 5.1.1.

1 A. In general, the differences between the price-listed rates and the current tariffed rates  
2 that I identified in Table 1 reflect the fact that price listed rates are exempt from the  
3 operation of the price cap framework applicable to other Commission-regulated  
4 services of the Company. Because that price cap plan includes a significant produc-  
5 tivity factor to reflect achievable productivity gains by the Company (which the Commis-  
6 sion has set at 4.955% per year, including the input price differential), the annual  
7 operation of the price cap has caused Qwest's tariffed rates to fall in aggregate by a  
8 few percentage points per year since it was implemented in 2001. In contrast, Qwest  
9 has simply held its rates in the price list constant over time, so that they have been  
10 steadily increasing relative to the tariffed rates. For example, in the Company's most  
11 recent price caps filing, Qwest reduced the tariffed rate for DID In-Only analog trunks  
12 from \$36.55 to \$34.70, a 5.3% decrease, but left the price-listed rate for that service  
13 at the higher \$36.55 level. Similarly, the individual Business Dial Tone rates in Qwest's  
14 price list equal the former tariffed rates, prior to the latest rate reductions that occurred  
15 as a result of the year 2003 price caps filing. From the consumer's point of view, this  
16 trend might well be considered as "passive" rate increases.

17  
18 Q. What do you mean by "passive" rate increases?

19  
20 A. In these instances, Qwest is not actively raising the prices charged under its price list,  
21 but nevertheless the customers taking service under the price lists — purportedly in a  
22 "competitive" exchange — end up paying more than the Qwest subscribers in the "non-  
23 competitive" exchanges who pay the tariffed rate. On a relative basis, the end result



1 is the same as an affirmative price increase, albeit less visible to the consumer. In any  
2 event, it is quite clear that this kind of pricing cannot be justified by Qwest as any valid  
3 “competitive response” to rival offerings, if indeed any such rivals actually exist. In  
4 reality, Qwest is using its pricing flexibility to extricate itself from price decreases that  
5 result from the operation of the price cap formula in order to recognize achievable net  
6 annual improvements in the Company’s productivity.

7  
8 **Qwest’s evidence of competitive entry for residential services falls far short**  
9 **of a demonstration that residential competition has developed sufficiently to**  
10 **constrain Qwest’s pricing of its residential exchange services to just and**  
11 **reasonable levels.**  
12

13 Q. Dr. Selwyn, have you reviewed the evidence on competitive activity that is provided in  
14 Mr. Teitzel’s prefiled testimony in this proceeding?

15  
16 A. Yes, I have.

17  
18 Q. In your view, is that evidence sufficient to demonstrate that Qwest is now subject to  
19 enough pricing pressure from competitors so that there is no need for the Commission  
20 to apply price caps to constrain the maximum prices the Company may charge for the  
21 services listed in its Petition?

22  
23 A. No, certainly not. The evidence of competitive entry for residential services presented  
24 in Mr. Teitzel’s prefiled testimony falls far short what would be needed to demonstrate

1 that residential competition has developed sufficiently to constrain Qwest's pricing of  
2 its residential local service offerings to just and reasonable levels. Until the Company  
3 can make that demonstration, the Commission should continue to protect residential  
4 consumers from the prospect of unconstrained price increases, as could occur if pricing  
5 flexibility were granted without a Commission-prescribed maximum cap on prices.

6  
7 Q. What is missing from the Company's analysis of competitive activity?

8  
9 A. Mr. Teitzel's prefiled testimony purports to provide evidence on a wire center-by-wire  
10 center basis concerning competitive activity, including such items as:

- 11  
12 • Number of UNE-P and resold lines supplied by Qwest;  
13 • Whether or not CLECs are collocated in the exchange;  
14 • Lines claimed to have been "lost" to competitors; and  
15 • Which CLECs (and wireless carriers) offer service in the exchange.<sup>17</sup>

16  
17 Mr. Teitzel has also provided a matrix comparing its residential services to the service  
18 offerings, including prices, available from the CLECs.<sup>18</sup> In addition, his Exhibit DLT-7  
19 contains copies of advertising and product description materials from various CLECs.

20  

---

17. See Teitzel Exhibit DLT-1.

18. Teitzel Exhibit DLT-3. Qwest also provides a similar comparison matrix for wire-  
less services, see Teitzel Exhibit DLT-7.

1        However, nowhere in his presentation does Mr. Teitzel specifically address, let alone  
2        provide evidence concerning, the issue of whether Qwest continues to hold market  
3        power for its residential services, i.e., the ability to raise prices indefinitely so as to earn  
4        supra-competitive profits.

5  
6        Q. Please explain.

7  
8        A. Economists consider a firm to possess market power if it can increase its prices above  
9        the competitive level without losing so many customers as to make the price increase  
10       unprofitable.<sup>19</sup> That capability will generally exist where (a) the product or service is  
11       viewed by consumers as a *necessity* (i.e., where the market demand is relatively price-  
12       inelastic), and (b) where there are no close substitutes. Basic residential telephone  
13       service is generally viewed as a necessity, as demonstrated by the fact that some 95%  
14       of all US households currently have at least one telephone line.<sup>20</sup> Basic residential  
15       telephone service also has no close substitutes (alternatives such as wireless phones  
16       are sometimes being proffered as substitutes for wireline service, but only a very small  
17       percentage of households have adopted wireless as their primary telephone service).  
18       If competing providers of basic residential service are present in a market, their

---

19. The 1992 Horizontal Merger Guidelines applied by the U.S. Department of Justice and Federal Trade Commission when conducting merger reviews defines market power as follows: "Market power to a seller is the ability profitably to maintain prices above competitive levels for a significant period of time." 1992 Horizontal Merger Guidelines, Section 0.1.

20. FCC Industry Analysis Division, *Trends in Telephone Service*, 2003 Report, August, 2003.

offerings would be close substitutes for the ILEC's service, thereby constraining the ILEC's price. Fringe competition, of the type being portrayed in the anecdotal evidence being offered by Mr. Teitzel, does not offer a sufficiently available substitute that it can constrain Qwest's prices. Indeed, to the extent that the underlying service that is being offered by many CLECs is actually provided by Qwest itself, there are virtually no independent sources of a substitute service for Qwest's residential offerings.

In order to determine whether the markets for residential exchange services in Qwest's service territory (in this case, limited to considering only the 44 wire centers identified in the Petition) are sufficiently competitive to make Commission-imposed price caps unnecessary, the key question that must be answered is whether Qwest, as the incumbent and historically dominant service provider, continues to possess market power with respect to those services. In general, the factors influencing the extent of a firm's market power are its *market share*, the *demand elasticity* confronting the firm ("firm price elasticity"), and its *elasticity of supply*.

*Market share* generally refers to the percentage of the total market served by a particular firm, and can be defined in a number of ways; those most relevant in the local exchange market would include measurements of access lines served, and revenues. Access line data is the most readily available, and therefore the most commonly used, in assessing market share. As I explain in more detail later in my testimony, recognizing the vertically integrated nature of Qwest's operations, market share needs to be assessed separately with respect to the underlying network services (facilities-based

1 competition) and with respect to Qwest's retail operations (facilities-based and resale  
2 competition at the retail level).

3  
4 *Firm demand elasticity* measures a customers' willingness and/or ability to modify the  
5 quantity of a good or service purchased from a given firm in response to a change in  
6 that firm's price. In a competitive market where rival firms offer similar, and hence sub-  
7 stitutable products, an attempt by any one firm to increase its price will cause cus-  
8 tomers to switch to an alternative supplier, and the price-raising firm will lose business.  
9 On the other hand, if there are no close substitutes *and* the good or service is viewed  
10 by the customer as *essential* (such as a core telephone or other public utility service),  
11 customers will not materially curtail their consumption of the product or service when  
12 its price rises. An examination of the price elasticity of demand for local exchange ser-  
13 vices confronting Qwest in Utah would thus provide a good indication of the extent to  
14 which customers are afforded actual competitive choices in the marketplace.

15  
16 *Supply elasticity* measures the extent to which firms are able to expand or contract  
17 their output in response to market price and other market conditions. Generally, if firms  
18 are able to rapidly adjust their supply — and particularly to increase it — in response  
19 to a price change, this will tend to limit any one firm's ability to maintain supracom-  
20 petitive prices, thereby limiting or eliminating that firm's market power. On the other  
21 hand, if competitors are not able to expand supply when another firm in the market  
22 increases prices, the firm imposing the price increase will have the ability to maintain

1 excessive prices over an extended period of time, which would demonstrate its market  
2 power.

3  
4 Q. Does Qwest's evidence address these three key market measures?

5  
6 A. No, it does not. All that Qwest has provided is access line count data for itself and for  
7 CLECs, which can be used to develop some estimates of market share. Otherwise,  
8 Qwest has essentially ignored these measures, and thus offers no evidence of the kind  
9 necessary to determine whether the residential markets for which it seeks pricing  
10 flexibility are sufficiently competitive that Commission-imposed price caps would be  
11 unnecessary.

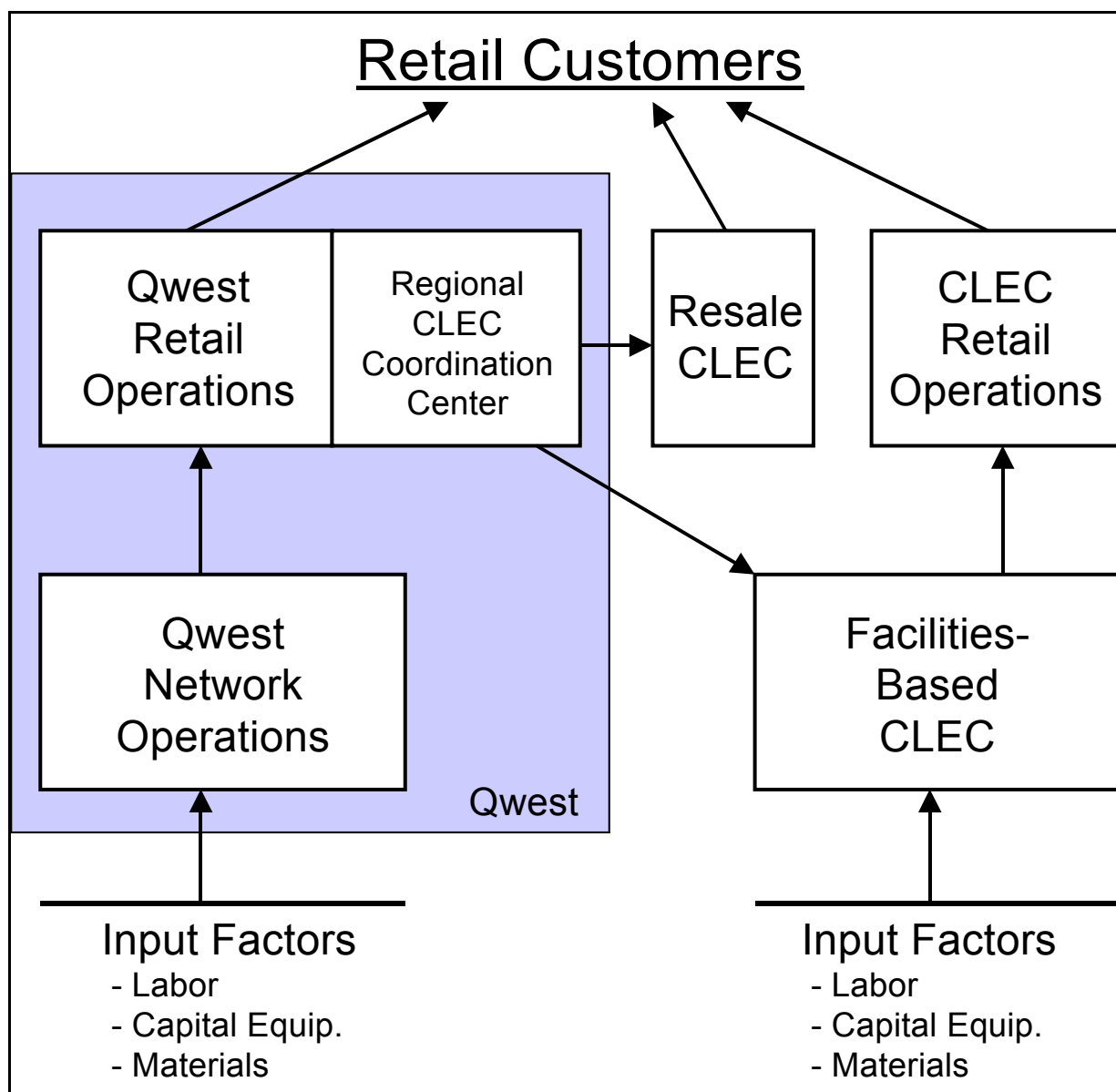
12  
13 Nevertheless, by considering the available data on Utah's residential services markets  
14 and the dynamics of local exchange market entry, it is possible to reach conclusive  
15 findings relative to each of the three market measures as they apply to those services.  
16 In fact, I have performed just that sort of analysis, and the following sections of my  
17 testimony address each of the measures in turn, and present my results. While further  
18 refinements could be made, my overall conclusion is that there is little doubt that Qwest  
19 continues to possess substantial market power relative to each of the residential local  
20 exchange services for which it seeks pricing flexibility, so that application of maximum  
21 price "caps" for those services is clearly warranted.

1 **Qwest maintains an overwhelming share of the residential local exchange**  
2 **service markets throughout the 44 exchanges addressed in its Petition.**  
3

4 Q. In order to measure Qwest's residential service market share, is it sufficient to simply  
5 calculate the number of Qwest retail access lines as a percentage of all end users'  
6 access lines?  
7

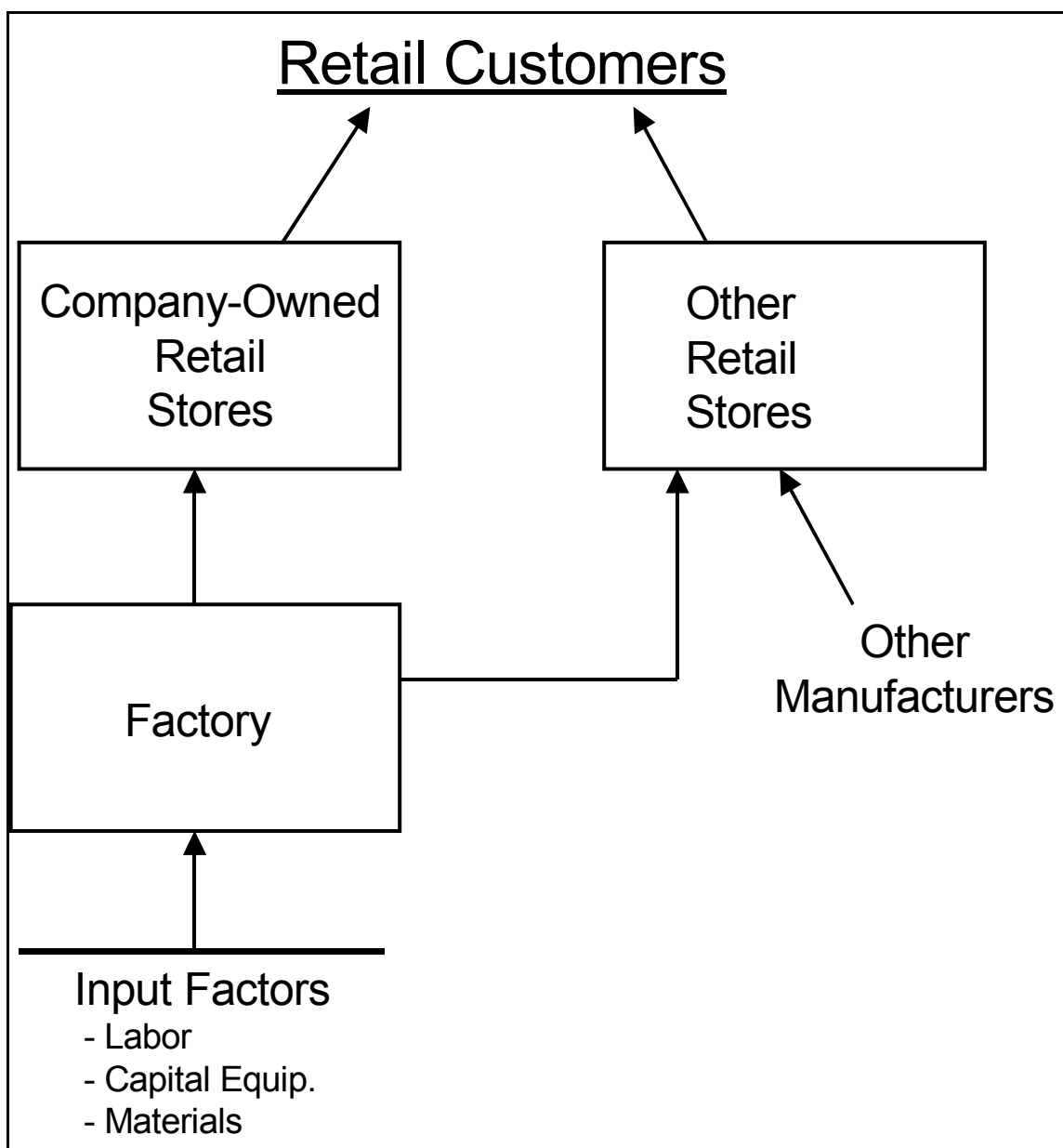
8 A. No, it is not. In order to evaluate Qwest's market share properly, it is necessary for  
9 analytical purposes to view Qwest as operating in two separate and distinct markets  
10 — (1) the physical production of the underlying network functions and services that are  
11 provided both to Qwest's own end use customers as well as to its competitors either  
12 for straight resale or for use in their own production of services furnished to the com-  
13 petitors' own end use customers, and (2) the retailing of the underlying services by  
14 Qwest directly to its own end use customers.  
15

16 It is thus useful to view Qwest as a vertically integrated firm that both *produces* the  
17 underlying services and then *retails* the services it produces to its end use customers  
18 in a downstream retail market. Figure 1 provides a schematic diagram of this vertical  
19 integration. In this context, Qwest's operation is analogous to a manufacturing firm that  
20 both operates its own chain of retail stores as well as distributes its products through  
21 independent (non-affiliated) retailers, as illustrated in Figure 2.



**Figure 1.** Existing Qwest Vertically Integrated Structure





**Figure 2.** Vertically integrated manufacturing company with company-owned retail stores and non-affiliated retail distribution channels.

1 Q. Why is it necessary to distinguish between and to separately analyze these two  
2 components of Qwest's operations?

3  
4 A. Qwest confronts significantly different levels of competition in these two vertically  
5 integrated components. Defining market share solely with respect to *access lines pro-*  
6 *vided at retail* overstates the actual competitor market share (relative to Qwest's entire  
7 integrated operations) and correspondingly understates Qwest's share of the total  
8 market. While Qwest may no longer provide service *at retail* in connection with facili-  
9 ties provided to CLECs, the Company nevertheless continues to provide these services  
10 on a wholesale basis, and receives wholesale revenues from the competitors that lease  
11 these access lines and UNEs (just like the manufacturer with respect to products that  
12 are sold through nonaffiliated retailers). The only "loss" to Qwest in these situations  
13 is the retail margin, the difference between the price at which Qwest sells these  
14 services at retail and the price it sells the corresponding service on a wholesale or UNE  
15 basis. And if the prices of Qwest's wholesale service have been properly set, the "loss"  
16 to Qwest of this retail margin should be roughly matched by the elimination of retailing  
17 costs that are avoided when a CLEC, rather than Qwest, provides the service at retail,  
18 thus making Qwest essentially *indifferent* as to whether it or a competing retail provider  
19 actually furnished Qwest's services to the ultimate end user consumer.<sup>21</sup>

---

21. With respect to bundled Qwest services provided on a wholesale basis for resale, Section 252(d)(3) of the *Telecommunications Act of 1996* requires that the "wholesale discount" be set "on the basis of retail rates charged to subscribers for the telecommunications service requested, excluding the portion thereof attributable to any marketing, billing, collection, and other costs that will be avoided by the local exchange carrier."

1 Q. Can you provide an illustration of this point?

2  
3 A. Yes. This can be readily demonstrated by means of a simple numerical example.

4 Suppose that the total market consists of one million access lines of which 100,000,  
5 or 10%, are provided by CLECs using Qwest wholesale and UNE services. (For pur-  
6 poses of this example, we will ignore facilities-based carrier shares of the underlying  
7 services/facilities segment.) If one compares only Qwest's retail line count to the total  
8 access line count for the market, the Company would have a 90% share of the market.  
9 However, if on average the retail margin (the wholesale "discount" or the difference  
10 between the UNE-P price and the retail price) is, say, 15%, then fully 85% of total  
11 CLEC *revenues* would still be paid over to Qwest. Qwest's actual market share (with  
12 respect to revenues) under these circumstances would be calculated as follows:

13  
14 Revenue share = Qwest retail share x 100% + CLEC retail share x (1-wholesale  
15 discount)

16  
17 
$$\text{Qwest Revenue share} = 0.90 \times 100\% + 0.10 \times (1-15\%) = 98.5\%$$

18  
19 Thus, the effective CLEC market share (relative to the totality of Qwest's integrated  
20 operations) would be only 1.5%, not the 10% as calculated solely with respect to the  
21 *retail* component.

1 Q. You indicated that for purposes of illustration, you assumed that Qwest provides the  
2 underlying wholesale facilities for 100% of the market. Does the formula need to be  
3 modified to calculate an effective market share for Qwest when some residential end  
4 use customers are served by a facilities-based competitor that does not rely on an  
5 unbundled loop or other Qwest wholesale elements?

6  
7 A. No, the same formula still applies in that situation. All that needs to be done in that  
8 case is to revise the Qwest and CLEC retail share percentages to recognize that their  
9 denominator, i.e. the total retail lines in the market, is larger by the amount of lines  
10 served by the facilities-based competitor(s). Thus, if we assume that an additional  
11 100,000 lines are served by a facilities-based provider not affiliated with Qwest (with  
12 no use of Qwest facilities), Qwest's retail share would be reduced from 90% to 81.8%,  
13 and the market share of the CLECs using Qwest wholesale and UNE services similarly  
14 falls from 10% to 9.1%. Inputting these revised percentages into the formula above  
15 yields an effective market share for Qwest of 89.5%.

16  
17 Q. Have you been able to calculate an estimate of Qwest's effective market share for the  
18 residential basic exchange service market in the Company's 44 designated wire  
19 centers in aggregate?

20  
21 A. Yes, although there are some data limitations that have prevented me from calculating  
22 a precise market share value. Mr. Teitzel has presented wire center level counts of the  
23 Company's residential access lines (see Exhibit DLT-9), and also counts for the

1 residential access lines that are served by CLECs using Qwest-provided UNE-P and  
2 resold lines (see Exhibit DLT-1). However, he has not presented any line counts for  
3 facilities-based local service providers,<sup>22</sup> presumably because the Company has no  
4 direct knowledge of facilities-based CLECs' customer base, the way that Qwest does  
5 for end users served using Qwest wholesale facilities. The Division has issued inter-  
6 rogatories to the CLECs to attempt to obtain that data, but my understanding is that the  
7 Division has experienced some delays in getting the requested information, and it was  
8 not available to me during the preparation of this testimony. Consequently, I have  
9 estimated Qwest's effective market share using a very conservative estimate of the  
10 amount of facilities-based residential access lines occurring in the 44 wire centers. The  
11 FCC has reported that as of year-end 2002, the total number of CLEC-owned access  
12 lines of *all types* (residential and business) was 91,263, for the *entire* state of Utah.<sup>23</sup>  
13 Assuming that all of those facilities-based lines occurred in the 44 wire centers, and  
14 that all of them were for residential service, I calculate an effective market share for  
15 Qwest of 87.0%. See Table 2 below. Of course, Qwest's actual market share will be  
16 higher, to the extent that some percentage of those facilities-based lines are provided  
17 for business services and/or are located outside of the 44 Qwest exchanges at issue.  
18 For example, if 25% of those lines were not supplying residential service within the 44  
19 exchanges, Qwest's effective market share would rise to 89.9%.

---

22. Teitzel (Qwest), at page 17, lines 9-11.

23. FCC Industry Analysis Division, *Local Telephone Competition Report*, at Table 10 (data as of December 31, 2002).

Table 2		
Qwest's Effective Residential Market Share in the 44 Exchanges Remains Extremely High		
Residential Exchange Service	Access Lines	Percentage
Qwest retail lines (Teitzel Exh. DLT-9)	612,710	85.5%
CLEC Resold/UNE-P lines (Teitzel Exh. DLT-1)	12,364	1.7%
Subtotal -- Qwest-provided wholesale lines	625,074	87.3%
CLEC Facilities-based lines (FCC -- 2002 Utah total)	91,263	12.7%
Total retail lines in market	716,337	100.0%
Retail discount (Dkt 99-049-20 Order)	12.2%	
Qwest Effective Market Share		87.0%

1 Q. Is Qwest's dominant share of the residential local exchange services market  
2 corroborated by other data provided by the Company?

3  
4 A. Yes, it is. Mr. Teitzel's Exhibit DLT-9 provides counts of access lines that Qwest claims  
5 have been "lost to competition." To obtain this data, Qwest apparently queries its retail  
6 customers who are disconnecting their service to determine whether they are switching  
7 to another local service provider.<sup>24</sup> As a threshold matter, it is striking that Qwest  
8 characterizes all migrations away from its retail services, including end users who  
9 continue to be served via a resold Qwest line or UNE-P facility, as "competitive losses."  
10 In contrast, when we recall the hypothetical manufacturing firm depicted in Figure 2  
11 presented earlier in my testimony, such a firm, which distributes a portion of its output  
12 through nonaffiliated retail channels, would hardly consider sales of its products by

---

24. Teitzel (Qwest) at pages 24 and 35.

1 those channels to constitute “competitive losses.” Notwithstanding that difference in  
2 perspective, the disconnect data also confirms that Qwest retains an overwhelmingly  
3 dominant position in the residential local exchange market as a whole. The total num-  
4 ber of access lines that Qwest claims to have “lost” as of June 30, 2003 (as provided  
5 in Mr. Teitzel’s updated version of Exhibit DLT-9) is 99,487. Subtracting the 12,364  
6 lines that Qwest has identified as Resale/UNE-P residential lines as of June 30, 2003<sup>25</sup>  
7 produces a count of 87,123 facilities-based access lines.<sup>26</sup> Substituting the latter value  
8 into our market share formula produces an effective market share for Qwest of 87.5%.  
9 This result is very similar to the market share value I obtained using the FCC-reported  
10 line count for facilities-based CLECs.

11  
12 Q. Are there additional measures of market concentration that the Commission can use  
13 to assess Qwest’s dominance in the provision of local exchange services?

14  
15 A. Yes, there are. The US Department of Justice and the Federal Trade Commission  
16 follow Horizontal Merger Guidelines when examining the impact of mergers on the  
17 competitiveness of particular markets.<sup>27</sup> The general goal of the guidelines is to ensure

---

25. Teitzel (Qwest), updated version of Exhibit DLT-1.

26. One could also remove the 2858 residential lines within the 44 exchanges that Qwest claims were disconnected due to a wireless substitution (i.e., 98% x 2916, see Teitzel (Qwest) at page 34, lines 12-15), but this refinement just increases the resulting market share estimate slightly, up to 87.9%.

27. 1992 Horizontal Merger Guidelines (revising the 1984 Merger Guidelines), 57 Fed. (continued...)

1 that proposed mergers do not “create or enhance market power or enhance its  
2 exercise.”<sup>28</sup> As such, the guidelines establish the use of the Herfindahl-Hirschman  
3 Index (“HHI”) as a measurement of market concentration, and thus the ability of the  
4 dominant firm to exercise market power.<sup>29</sup> The results of the calculation show the  
5 expected market concentration post-merger and are categorized as unconcentrated  
6 (HHI below 1,000), moderately concentrated (HHI between 1,000 and 1,800), and  
7 highly concentrated (HHI above 1,800).<sup>30</sup> While we are not addressing market share  
8 with respect to a merger in this instant proceeding, the HHI measurement is nonethe-  
9 less an appropriate evaluation of market concentration.

10  
11 Q. If the HHI was calculated with respect to the residential local exchange market in Utah,  
12 what would the results show?

13  
14 A. Under any of the market share estimates that I have presented above, the local  
15 residential exchange market in Utah would be categorized as highly concentrated.  
16 Using even the lowest market share value that I determined for Qwest, 87.0%, the

---

27. (...continued)  
Reg. 41552.

28. *Id.*, at “0.1 Purpose and Underlying Policy Assumptions of the Guidelines.”

29. *Id.*, at “1.5 Concentration and Market Shares.” The HHI is calculated by summing the squares of the market shares of all participants in the market.

30. *Id.*, at “1.51 General Standards.”



1 resulting HHI value of 7,569 is well over 7,000.<sup>31</sup> As I stated above, the Horizontal  
2 Merger Guidelines regard an HHI above 1,800 as evidence of a highly concentrated  
3 market; thus, under my market share estimates, or for that matter any other estimate  
4 in the same general range, the HHI for the Utah local exchange service market is so  
5 far in excess of the 1,800 threshold for “highly concentrated” that by any objective  
6 standard it could not be considered to be a market in which effective price-constraining  
7 competition would be likely to emerge.

8  
9 Q. How do these results compare to prior determinations by the Commission concerning  
10 Qwest’s dominance in the residential exchange market in Utah?

11  
12 A. In its year 2002 report to the Governor and Legislature, the Commission presented HHI  
13 values for Qwest’s entire service territory in Utah (including exchanges beyond the 44  
14 listed in its Petition). The Commission reported an HHI value for the residential market  
15 of 8530 for the year 2002.<sup>32</sup> The Commission also opined that:

---

31. Because Qwest possesses such a large share of the market, calculating the HHI with Qwest’s share alone results in a conclusion of “high concentration.” It is thus unnecessary to know the individual market shares of any other smaller competitors, as adding them to the calculation only raises the HHI. Qwest’s market share would have to fall to around 40% before the inclusion of other competitor’s market share would have any impact upon the conclusion drawn from the HHI calculation.

32. *The Status of Telecommunications Competition in Utah*, Fifth Annual Report to the Governor, Legislature, the Public Utilities and Technology Interim Committee, and Information Technology Commission, November 2002 (“Fifth Annual Report”), at page 16. While the Commission’s report expresses HHI values as decimals (e.g., 0.853), for consistency I have converted them into the scale used in the 1992 Merger Guidelines (e.g., 8530).

1 An index value of .50 is the necessary threshold value for the market to begin to  
2 be considered somewhat competitive.<sup>33</sup>  
3

4 If that guideline (which can be expressed as an HHI value of 5000) is applied to the  
5 updated HHI values that I have calculated, it is clear that the residential exchange  
6 market fails to qualify as even “somewhat competitive,” let alone sufficiently competitive  
7 to constrain Qwest’s residential service price levels absent continued regulatory  
8 protections.  
9

10 Q. How does Qwest’s residential market share compare to the market share that AT&T  
11 held when the FCC determined that there was sufficient competition to eliminate  
12 regulatory oversight of its price levels?  
13

14 A. After the break-up of the former Bell system in 1984, AT&T remained the default toll  
15 carrier for the vast majority of customers despite the fact that the market was open to  
16 competition. Accordingly, AT&T was not allowed significant pricing discretion for its  
17 domestic interstate toll services until 1995, when the FCC granted AT&T’s bid for  
18 “nondominant carrier” status.<sup>34</sup> The FCC based that decision, in part, upon AT&T’s  
19 market share, which had fallen to the 60% level.<sup>35</sup> The FCC specifically concluded that  
20 “[f]rom 1984 to 1994, AT&T’s market share, in terms of both revenues and minutes, fell

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33. *Id.*, at page 15.

34. In the Matter of Motion of AT&T Corp. to be Reclassified as a Non-Dominant Carrier, *Order*, FCC 95-427, 11 FCC Rcd 3271 (1995).

35. *Id.*, at para. 68.

1 from approximately 90 percent to 55.2 and 58.6 percent in terms of revenues and  
2 minutes, respectively.”<sup>36</sup> Clearly, while there has been some competitive erosion of  
3 Qwest’s residential market share, it has not fallen to anywhere close to those levels in  
4 aggregate.

5  
6 Q. When the FCC evaluated AT&T’s market power and determined that AT&T was no  
7 longer dominant in the interstate toll market, did it also consider supply and demand  
8 elasticities?

9  
10 A. Yes, it did. The FCC observed that “[i]t is well-established that supply and demand  
11 elasticities are properly considered in assessing whether a firm has market power in  
12 the relevant product and geographic markets.”<sup>37</sup> The FCC concluded that AT&T faced  
13 supply that was “sufficiently elastic to constrain AT&T’s unilateral pricing decisions,”  
14 and also that (relative to interstate toll service) “residential customers are highly  
15 demand-elastic and will switch to or from AT&T in order to obtain price reductions and  
16 desired features.”<sup>38</sup> To the extent that Qwest confronts less elastic conditions for its  
17 residential exchange services in Utah, even if Qwest’s market share were to fall to  
18 AT&T’s 1994 toll market share levels (e.g., in a particular wire center), that fact alone

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36. *Id.*, at para. 67.

37. *Id.*, at para. 57 (footnote omitted).

38. *Id.*, at paras. 58 and 63 (footnote omitted).

1 would be insufficient to support a conclusion that Qwest no longer possessed signifi-  
2 cant market power.

3  
4 Q. So far, your analysis has focused upon the residential service market as a whole. Do  
5 your conclusions change if Qwest's market share and market concentration (HHI) are  
6 analyzed on a wire center-by-wire center basis?

7  
8 A. No, they do not. A precise calculation of HHI values for each of the 44 exchanges at  
9 issue would require residential market share data for *each* of the CLECs offering  
10 service in those exchanges. I understand that the Division has been making discovery  
11 efforts to obtain the access line data from the CLECs that would be needed to derive  
12 those market shares. Even without that data, however, it is possible to derive conser-  
13 vative, lower-bounds estimates of HHIs by wire center based solely upon Qwest's  
14 market share in each exchange. Because the HHI is calculated as the sum of the  
15 squares of the market share of all firms in a given market, taking into account the  
16 individual CLECs' market shares would only increase the HHI from the value calculated  
17 by considering Qwest alone.

18  
19 Table 3 below provides estimates of Qwest's residential market share in each of the  
20 44 exchanges, based upon the methodology described above and assuming that the  
21 "Lines Loss [sic] to Competition" data supplied in Mr. Teitzel's updated Exhibit DLT-9  
22 can be taken at face value as representative of CLEC activity in each exchange. For  
23 purposes of comparison, I have sorted the exchanges by the resulting Qwest market

1 share values, from highest to lowest. As Table 3 demonstrates, based upon the  
2 Company's claimed line loss data, Qwest continues to hold an effective market share  
3 of 98% or above in twenty of the 44 exchanges. For another eleven of those  
4 exchanges, Qwest's market share exceeds 90%. Only *two* show an effective market  
5 share below 65%: BEGIN PROPRIETARY<< [REDACTED]  
6 >> END PROPRIETARY<sup>39</sup> And for *every one* of the 44 exchanges, the HHI value  
7 (conservatively estimated by calculating relative to Qwest's market share only) is far  
8 in excess of the 1,800 threshold for a finding under the Horizontal Merger Guidelines  
9 of a "highly concentrated" market.

10  
11 Q. How do the HHI values for the 44 exchanges compare to the threshold level of 5,000  
12 (i.e., an index value of 0.50) that the Commission viewed as the minimum for a market  
13 "to begin to be considered somewhat competitive"?

14  
15 A. Even under my conservative HHI estimates, the vast majority of the 44 exchanges  
16 show residential market concentration levels that exceed 5,000, and thus would fail to  
17 qualify as even beginning to be "somewhat competitive" using that threshold, let alone  
18 to be considered to manifest effective price-constraining competition. Only four  
19 exchanges, namely BEGIN PROPRIETARY<< [REDACTED]  
20 [REDACTED] >>END PROPRIETARY have HHIs below 5,000 for the residential exchange

---

39. Note that the access lines for the North Salt Lake and Roy exchanges have been folded into the calculations for Bountiful and Clearfield, respectively, to reflect Qwest's treatment of those exchanges. See Notes A and B to Teitzel Exhibit DLT-9 (updated version).

- 1 market (see Table 3), and in each case their HHI is still more than double the 1992
- 2 Merger Guidelines threshold of 1800 for a “highly concentrated market.”

Table 3						
Qwest Holds a Dominant Market Share in Each of the 44 Exchanges						
Exchange	Qwest Residential Market Share	HHI Value		Exchange	Qwest Residential Market Share	HHI Value
Washington <sup>1</sup>				Tooele		
Santaquin				Springville		
Farmington				Park City		
Ogden West				Salt Lake East		
Riverton				Midvale		
Huntsville				Cedar City		
Layton				Logan		
Smithfield				Bountiful		
Heber City				Holladay		
Grantsville				Salt Lake South		
St. George				Salt Lake Main		
West Jordan				Ogden North		
Payson				Salt Lake West		
Cottonwood				Orem		
Clearfield				Ogden South		
Lehi				Murray		
Kaysville				Magna		
American Fork				Ogden Main		
Draper				Kearns		
Pleasant Grove				Provo		
Brigham City				N. Salt Lake <sup>2</sup>		
Spanish Fork				Roy <sup>2</sup>		
Sources: Teitzel Exhibits DLT-1 and DLT-9 (updated versions, 6/30/03 data).						
Notes:						
1.						
2. N. Salt Lake included in the Bountiful exchange; Roy included in the Clearfield exchange.						
Contains Allegedly Proprietary Qwest Data						

1 Given these results, I conclude that Qwest continues to have a dominant share of the  
2 residential exchange services market in each of the 44 exchanges at issue, which  
3 strongly supports a finding by the Commission that a price cap should be applied to  
4 constrain Qwest from potentially abusing its market power.

5  
6 Q. You have characterized these exchange-level HHI calculations as “conservative”  
7 because you did not include values for CLEC shares. How would the inclusion of  
8 CLEC shares affect the calculated HHI values?

9  
10 A. The HHI is an index of market concentration, and is generally calculated using the  
11 respective shares of the four largest firms. Because individual share values are  
12 squared, firms with small shares would have little effect upon the HHI. To see how this  
13 might work, we can use the Qwest exchange with the lowest Qwest share BEGIN  
14 PROPRIETARY<< [REDACTED] >> END PROPRIETARY, and recalculate the HHI on the  
15 assumption that the non-Qwest share is made up of one large CLEC (e.g., the local  
16 cable operator) and two small fringe providers that resell Qwest service. Assuming  
17 shares of BEGIN PROPRIETARY<< [REDACTED] >> END PROPRIETARY  
18 respectively for the three largest CLECs, the HHI for this exchange would be BEGIN  
19 PROPRIETARY << [REDACTED] >> END PROPRIETARY. In the event that exchange-level  
20 CLEC shares become available, I will revise Table 3 to reflect these more complete  
21 HHI calculations.

22

1 **There are no indications that the demand elasticity for residential exchange**  
2 **services in Utah is sufficiently high to prevent Qwest from exercising its**  
3 **market power.**  
4

5 Q. How does demand elasticity provide an indication of Qwest's market power?  
6

7 A. Demand elasticity is simply a customer's willingness and/or ability to modify the quan-  
8 tity of a good or service the customer purchases from a given firm in response to a  
9 change in that firm's price. More formally, price elasticity of demand is defined as the  
10 percentage change in quantity demanded as a result of a 1% change in the price of a  
11 good.<sup>40</sup> If the good or service has close substitutes (such as similar products that are  
12 offered by competing firms) or is viewed as a luxury or discretionary purchase by the  
13 consumer, demand confronting the firm will tend to be relatively price-elastic. Thus,  
14 in a competitive market where rival firms offer similar, and hence substitutable,  
15 products, an attempt by any one firm to increase its price (that is not immediately  
16 mirrored by other firms) will incent customers to switch to an alternative supplier, and  
17 the price-raising firm will lose business. On the other hand, if there are no close sub-  
18 stitutes *and* the good or service is viewed by the customer as *essential* (such as a core  
19 telephone or other public utility service), customers will continue to purchase roughly  
20 the same quantity of the product despite the increased price, forgoing or reducing  
21 consumption of some other, more discretionary product or service. It is for this reason  
22 that an examination of the price elasticity of demand for residential exchange services

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40. See, for example, Edwin Mansfield, *Microeconomics: Theory & Applications*, New York: W.W. Norton & Company, Inc., 1970.



1 confronting Qwest can provide further evidence concerning the extent to which Utah  
2 consumers have actual competitive choices in the marketplace.

3  
4 Q. Why is price elasticity of demand important?

5  
6 A. If, for example, price elasticity of demand is at or greater (in absolute value) than 1.0,<sup>41</sup>  
7 then a firm cannot expect to gain revenues by increasing price above marginal cost,  
8 because customers would seek out alternative services from competing firms.  
9 However, if price elasticity of demand is less (in absolute value) than 1.0, a firm can  
10 expect to gain revenues by increasing its price for a good or service.

11  
12 Q. You have been referring to price elasticity of demand with respect to an individual firm.  
13 Can price elasticity of demand also be measured with respect to the overall market for  
14 a particular good or service?

15  
16 A. Yes, it can. We generally think of “market elasticity” as referring to a customer’s will-  
17 ingness to change the quantity demanded in response to a change in the overall  
18 market price level for the product, i.e., where all firms in the market modify their prices  
19 equally and simultaneously. If only one firm in a competitive market changes its price,  
20 customers are able to shift their demand toward that firm (if it lowers its price) or away

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41. A price elasticity of  $-1.0$  implies that a 1% rise in price will result in a 1% decrease in demand, such that total revenues are unchanged. Economists generally refer to price elasticity in absolute value terms. Mathematically, price elasticity of demand is negative for normal goods (i.e. when price rises, demand falls).

1 from that firm (if it raises its price). If there is only one firm in a market (i.e., a mono-  
2 poly), then the market and firm demand elasticities will be the same. For markets with  
3 more than one firm, the price elasticity of demand confronting any one firm will always  
4 be greater or equal to the price elasticity of demand for the market as a whole.

5  
6 In this case, the Commission should also be concerned with cross-price elasticity, one  
7 of the elements that determines firm elasticity of demand. Firm elasticity of demand  
8 is essentially the percentage change in the firm's sales that will result from a one per-  
9 cent change in the price the firm charges. The firm elasticity of demand is made up of  
10 individual consumers' elasticities of demand, cross-price elasticity of demand, and  
11 elasticity of supply. Thus, Qwest's firm elasticity of demand is dependent upon both  
12 how consumers and competitors react to price changes. The question then becomes,  
13 when the price of good X (or a service from the incumbent company) rises, is there a  
14 reduction of demand for good X and a corresponding increase in demand for good Y  
15 (or a service from the competitor)? In other words, do customers buy more competitive  
16 services when confronted with a price increase for incumbent services?

17  
18 Q. Has Qwest addressed its firm elasticity of demand for local exchange services in its  
19 Petition or supporting testimony?

20  
21 A. No. Neither the Petition nor Mr. Teitzel's prefiled testimony provides any estimates of  
22 price elasticity of demand in the residential marketplace, for Qwest or for the market

1 as a whole. Thus Qwest has not demonstrated, nor even attempted to demonstrate,  
2 that there exists any price sensitivity to its own services.

3  
4 Q. Are you aware of any recent estimates of price elasticity of demand for basic exchange  
5 services that would suggest that they are price inelastic?

6  
7 A. Yes. Dr. William Taylor of National Economic Research Associates, Inc. ("NERA"),  
8 who frequently serves as a consultant to Qwest, considered a price elasticity demand  
9 value of  $-0.1$  for basic exchange services (residential and business) as reasonable in  
10 testimony he offered on behalf of Verizon North before the Pennsylvania Public Utility  
11 Commission.<sup>42</sup> Clearly, any elasticity value in that order of magnitude supports a con-  
12 clusion that those services are highly price inelastic.

13  
14 **Supply elasticity for competitive firms is highly inelastic, due to the financial**  
15 **difficulties faced by CLECs and the economic non-viability of Qwest's resale**  
16 **and UNE-P offerings as a means of CLEC service provisioning.**  
17

18 Q. What do economists mean by "supply elasticity"?

19  
20 A. Supply elasticity generally refers to the extent to which firms are able to expand or con-  
21 tract their output in response to market price and other market conditions. Generally,

---

42. Pennsylvania PUC Docket No. P-00001854, Prepared Rebuttal Testimony of William E. Taylor on behalf of Verizon North, Inc., Verizon North Statement No. 4.1, February 20, 2001, at 24.

1 if firms are able to rapidly adjust their supply — and particularly to increase it — in  
2 response to a price change, this will tend to limit any one firm's ability to maintain  
3 supracompetitive prices. In other words, if Qwest's competitors are able to rapidly ex-  
4 pand their supply in response to a Qwest price increase, then Qwest's ability to sustain  
5 a significant price increase would be limited. On the other hand, if competitors are not  
6 able to expand their supply when Qwest raises its price, Qwest will be able to imple-  
7 ment and maintain excessive price increases over an extended period of time.

8  
9 Q. What evidence has Qwest provided that would suggest that competitor supply elas-  
10 ticities are sufficiently high that Qwest would not be able to sustain a significant in-  
11 crease in its residential service prices?

12  
13 A. Basically, Qwest has offered virtually no evidence in this regard, other than the impli-  
14 cation that the growth that it claims competitors are experiencing is indicative of their  
15 ability to expand output.

16  
17 Q. Are CLECs characterized by a level of supply elasticity sufficient to act as a competitive  
18 constraint on Qwest's market power?

19  
20 A. No, and in fact the available evidence would affirmatively support a finding that CLEC  
21 supply is highly *inelastic*.

22  
23 Q. On what do you base that conclusion?

1 A. First, CLECs have been experiencing substantial difficulties raising capital to finance  
2 and sustain any major expansion of their facilities. The plummet of the stock prices  
3 and market capitalization of nearly all CLECs since late 1999, coupled with the fact that  
4 many have either gone out of business or are operating under bankruptcy protection,  
5 provides a stark contrast to Mr. Teitzel's characterization that "[r]esidential competition  
6 is prevalent and expanding rapidly".<sup>43</sup>

7  
8 Table 4 below presents a comparison of CLEC market capitalizations<sup>44</sup> before the  
9 CLEC stock collapse and as they stand today (using September 18, 2003). As illus-  
10 trated in Table 4, many CLECs have experienced a precipitous drop in stock price and  
11 market capitalization over the past four years, and they remain depressed relative to  
12 their prior levels. Moreover, numerous CLECs were forced to file for Chapter 11 bank-  
13 ruptcy and are either no longer operating or have been debited from NASDAQ. For  
14 those that have survived, the dramatic decreases in CLEC share prices indicate that  
15 (1) investors have less confidence in these companies' ability to succeed with business  
16 plans premised upon competing with ILECs; and (2) the companies themselves now  
17 will have much more difficulty attracting capital with which to pursue their business  
18 plans. Telecommunications is a high fixed-cost industry, and a lack of capital with  
19 which to pursue market entry and expansion will adversely impact many carriers' ability

---

43. Teitzel (Qwest), at page 15, lines 5-6.

44. My estimates of market capitalization are based on the indicated date's closing stock price times the number of outstanding common shares. Other methods (e.g., including preferred shares) might result in somewhat different values for certain companies, but are unlikely to affect the general trends shown in Table 4.

1 to stay in business, let alone expand their capacity. In terms of supply elasticity, the  
2 bottom line is that even if CLECs were inclined to significantly expand their networks  
3 in Utah, they would likely be unable to attract sufficient capital to do so under current  
4 conditions in the capital markets.

Table 4

## Changes In CLEC Market Capitalization

	September 30, 1999			September 18, 2003			
		In Millions			In Millions		
Company	Stock Price	Shares out-standing	Market Cap	Stock Price	Shares out-standing	Market Cap	%change from 9/30/99 to 9/18/03 <sup>1</sup>
Adelphia	\$ 28.00	51.42	\$ 1,439.67	—	—	—	—
Allegiance	\$ 63.00	64.86	\$ 4,086.48	\$ 0.09	124.74	\$ 11.23	-99.73%
AT&T Corp	\$ 47.44	3,195.63	\$ 151,592.86	\$ 13.04	3851.98	\$ 50,229.82	-66.87%
Commonwealth Tele	\$ 44.00	22.11	\$ 972.77	\$ 41.47	23.93	\$ 992.38	2.02%
CoreCom	\$ 37.19	72.05	\$ 2,679.43	—	—	—	—
CTC Communications	\$ 16.44	14.55	\$ 239.24	—	—	—	—
CTCI	\$ 47.00	19.93	\$ 936.49	\$ 14.29	18.76	\$ 268.08	-71.37%
Intermedia	\$ 25.00	50.99	\$ 1,274.64	—	—	—	—
Focal	\$ 23.94	60.65	\$ 1,451.72	\$ 0.50	4.94	\$ 2.47	-99.83%
Global Crossing	\$ 26.50	794.77	\$ 21,061.42	—	—	—	—
GST Telecomm Inc	\$ 7.03	37.71	\$ 265.18	—	—	—	—
McLeodUSA <sup>2</sup>	\$ 41.06	155.30	\$ 6,376.62	1.49	166.02	\$ 247.37	-96.12%
Northpoint	\$ 24.31	125.24	\$ 3,044.88	—	—	—	—
IOG Communications	\$ 15.56	47.34	\$ 736.77	—	—	—	—
Level 3 Communications	\$ 52.22	341.08	\$ 17,810.58	\$ 4.96	655.00	\$ 3,248.80	-81.76%
Worldcom	\$ 76.88	1,880.22	\$ 144,541.84	—	—	—	—
RCN	\$ 49.69	76.18	\$ 3,785.42	\$ 2.57	111.17	\$ 285.71	-92.45%
Sprint	\$ 54.25	785.21	\$ 42,597.39	\$ 15.58	903.17	\$ 14,071.39	-66.97%
Time Warner Telecom	\$ 20.88	104.54	\$ 2,182.75	\$ 9.05	114.93	\$ 1,040.12	-52.35%
Winstar Comm Inc	\$ 39.06	54.93	\$ 2,145.89	—	—	—	—
XO Comm/Nextel	\$ 61.38	315.45	\$ 19,360.84	—	—	—	—

Source: carrier 10Q reports, [www.thedigest.com/stocks/](http://www.thedigest.com/stocks/), [finance.yahoo.com](http://finance.yahoo.com)

Notes: — Indicates that the company has filed chapter 11, or has been delisted from the Nasdaq.

1: All data is current through September 18, 2003 except AT&T which is drawn from October 31, 2002 data (pre-Comcast divestiture) and Connectiv and Focal, which are drawn from September 24, 2002 data (before the they were acquired by other companies).

2: Stock price for 1999 is as of March 22, 1999

1 Q. What other factors lead you to conclude that CLEC supply in the Utah residential  
2 markets is highly inelastic?

3  
4 A. In other areas of the country, the limited residential exchange competition that does  
5 exist has been occurring predominantly through resale of the ILEC services and via  
6 leasing of the UNE-Platform (“UNE-P”) combination of unbundled network elements  
7 (“UNEs”).<sup>45</sup> However, the “competitive line loss” data reported by Mr. Teitzel indicate  
8 that relatively few residential lines are being served via resale or UNE-P, especially in  
9 those exchanges in which Qwest claims the greatest extent of line loss. For example,  
10 in each of the four wire centers where Qwest purports to have experienced the highest  
11 residential line loss, BEGIN PROPRIETARY<< [REDACTED]  
12 [REDACTED]>>END PROPRIETARY, Qwest’s counts of residential resale and UNE-P lines  
13 comprise five percent or less of its total claimed lines lost.<sup>46</sup> This may reflect the rela-  
14 tively narrow margins afforded by Qwest’s resale discount for residential dial tone lines  
15 (12.2%), and its economically unattractive UNE rate levels. Moreover, Qwest’s UNE  
16 rates are currently under review in Docket 01-049-85, and the Division has proposed  
17 significant rate increases for UNE loops in Zones 2 (from \$13.83 to \$15.46) and 3 (from

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45. UNE-P consists of a combination of an unbundled loop, port, local switching, and shared transport facilities, priced using the “Total Element Long Run Incremental Cost” (“TELRIC”) methodology prescribed by the FCC. Nationwide, use of resale has leveled off since 2000, whereas use of UNE-P has expanded.

46. See Teitzel Exhibit DLT-1 (updated), column “Total UNE-P & Resale Lines” versus column “Lines Lost to Competition.”



1     \$19.11 to \$35.37).<sup>47</sup> Finally, despite the Commission's stated opposition to the regional  
2     Bell companies' attempts to eliminate UNE-P as a competitive entry vehicle,<sup>48</sup> the UNE-  
3     P option soon could be curtailed or even eliminated outright, given that the FCC's  
4     August 21, 2003 *Triennial Review Order* requires the Commission to complete an  
5     investigation within the next nine months as to whether CLECs are "impaired" without  
6     access to local switching (a necessary component of UNE-P).<sup>49</sup>

7  
8     These circumstances greatly limit CLECs' ability to increase their output quickly using  
9     Qwest-provided wholesale services. Their only other recourse, self-provisioning, is not  
10    only limited by the capital funding difficulties I described earlier in my testimony, but  
11    also is generally far slower to undertake. Thus, were Qwest to attempt to exercise  
12    market power by unilaterally raising its residential service prices, even if the necessary  
13    investment capital were available, it could take many months, or even years, before  
14    CLECs would be able to expand their capacity by constructing new facilities. In other

---

47. *Id.*

48. Fifth Annual Report, at page 23.

49. *In the Matter of Review of the Section 252 Unbundling Obligations of Incumbent Local Exchange Carrier*, CC Docket No. 01-338; *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98; *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, *Report and Order and Order on Remand and Further Notice of Proposed Rulemaking*, Rel. August 21, 2003 ("Triennial Review Order"), at para. 527.

1 words, CLECs' supply elasticity is significantly lower than it would be if CLECs had  
2 economically viable access to Qwest's wholesale facilities to serve residential  
3 customers.

4  
5 Q. Given the CLEC supply constraints that you have identified and Qwest's dominance  
6 of the local exchange market, what conclusions do you draw concerning the ability of  
7 market forces to constrain Qwest's prices?

8  
9 A. In a market where effective, price-constraining competition has emerged, if Qwest  
10 charged prices above marginal cost, then competitors would enter the market and/or  
11 expand their supply and undercut Qwest's prices, resulting in customer migration away  
12 from Qwest toward the competitors. However, that condition requires that there be  
13 competitors in the market with the capacity and capability to *independently* serve the  
14 demand that would be shifted away from Qwest, i.e., competitors with relatively elastic  
15 supply/production characteristics *and* a sufficient number of such competitors that they  
16 will not simply mirror the price movements of the dominant firm. In markets charac-  
17 terized by one firm with overwhelming dominance and a number of small "fringe" com-  
18 petitors, the dominant firm tends to act as "price setter" while the fringe competitors act  
19 as "price takers," adjusting their prices in lock-step with those set by the incumbent.  
20 It is only where the relative sizes of the various firms in a market are approximately  
21 equal that no one firm can act as price-setter. The evidence that I have presented  
22 above demonstrates Qwest's dominance in the residential exchange market and its  
23 rivals' status as fringe competitors. Taking the Qwest market share value that I calcu-

1 lated earlier and spreading the non-Qwest share across the eight different CLECs that  
2 Mr. Teitzel identifies as participants in the Utah residential exchange market,<sup>50</sup> what we  
3 see is a market with one firm having an 87% share and eight firms collectively dividing  
4 up the remaining 13%, i.e., an average of about 1.6% each. Under these extremely  
5 lopsided conditions, competing fringe firms cannot realistically be expected to offer any  
6 serious pricing challenge or pressure on Qwest if the dominant firm, granted  
7 unconstrained upward pricing flexibility, were to impose supracompetitive prices.

8  
9 **Wireless service is not a substitute for Qwest's wireline exchange services**  
10 **and does not constrain Qwest's pricing of its retail local exchange services.**  
11

12 Q. Mr. Teitzel devotes considerable space in his testimony to describing the services  
13 provided by wireless carriers in Utah. Are the residential services provided by wireless  
14 carriers a full economic substitute for Qwest's residential local exchange services?  
15

16 A. No, they are not. While wireless services are obviously a widespread and important  
17 form of telecommunications in Utah, there are significant differences between wireless  
18 and Qwest's wireline services, in the areas of functionality, service quality, and the  
19 scope and pricing of services, which thus far have prevented wireless from acting as

---

50. Teitzel (Qwest), at page 10.

1 a fully competitive alternative and economic substitute for the Company's residential  
2 wireline services. Some of these principal differences are as follows.<sup>51</sup>

3  
4 *Functionality.* From its inception, a primary attribute of wireless phone service (formally  
5 known as Commercial Mobile Radio Service, "CMRS") has been that the handsets are  
6 portable rather than geographically fixed, as is traditional wireline service. While this  
7 mobility is a very attractive feature, it also has meant that CMRS providers initially  
8 positioned their offerings as a premium service for which they charged much higher  
9 rates compared to wireline service. Moreover, because the CMRS customers were  
10 perceived to directly benefit from that mobility, most CMRS providers opted to charge  
11 their customers per-minute charges for in-bound calls (known as "called party pays"),  
12 over and above the ordinary local or toll charges incurred by the calling party. This in  
13 turn meant that CMRS customers were often reluctant to give out their telephone  
14 numbers so that they could better control their expenditures, and even today the com-  
15 mon practice is that the telephone numbers of CMRS subscribers are not listed in the  
16 white pages directories. Mr. Teitzel indicates that in Utah, CMRS subscribers must pay  
17 an Additional Listings charge to place their telephone number in Qwest's residential  
18 white pages (published by Dex)<sup>52</sup> in contrast to the free listing supplied to subscribers  
19 of the residential services of wireline CLECs. Indeed, he also admits that only a minus-

---

51. Mr. Dunkel's testimony explains in further detail why wireless services are not fully comparable to Qwest's wireline exchange services.

52. Teitzel (Qwest), at page 31.

1 cule number of CMRS subscribers have actually elected to list their residential num-  
2 bers in the Qwest white pages.<sup>53</sup> These differences from the practice for wireline local  
3 service have tended to reinforce the persisting distinction between the markets for  
4 residential CMRS and for traditional wireline exchange services.

5  
6 *Service quality.* Delivering adequate service quality, as measured by such variables  
7 as communications fidelity (static, distortion, etc.), blocked called attempts and dropped  
8 calls, has been notoriously problematic for CMRS providers, although the introduction  
9 of PCS technologies and increased investment in capacity and geographic coverage  
10 has significantly closed the gap relative to wireline services. Nevertheless, as the FCC  
11 concluded in its recently-released Triennial Review Order, “*wireless CMRS connec-*  
12 *tions in general do not yet equal traditional landline facilities in their quality* and their  
13 *ability to handle data traffic.*”<sup>54</sup> Notably, the FCC reached this conclusion in part on evi-  
14 dence that wireless service is engineered to provide only roughly a 70% call completion  
15 rate while wireline call completion rates exceed 99%.<sup>55</sup>

16  
17 *Scope and pricing of services.* CMRS providers typically furnish local exchange ser-  
18 vice as only one component of a bundled offering that also includes vertical features,

---

53. Teitzel (Qwest), at page 31, footnote 27 (“[as of May 1, 2003, 128 residential customers in Utah listed a wireless telephone number in the Qwest directory”).

54. *Triennial Review Order*, at para. 445 (emphasis supplied).

55. *Id.*, at para. 445, footnote 1363.

1 toll service, and even voice mail (which is defined by the FCC as an unregulated infor-  
2 mation service rather than a telecommunications service *per se*). Mr. Teitzel's Exhibit  
3 DLT-13, which is a table comparing Qwest's wireline services to the CMRS providers'  
4 offerings in Utah, confirms that this is the case in Utah. Out of the eleven wireless  
5 offerings that Mr. Teitzel identifies, eight include vertical services and voice mail, and  
6 seven include at least some long distance calling. As a result, it is not surprising that  
7 the advertised prices for the wireless plans that he identifies (e.g., Sprint's Free & Clear  
8 300 plan, at \$35.00 per month) are considerably higher than the total charges he cites  
9 for Qwest's residential single line flat-rate (1FR) charges of \$23.15<sup>56</sup> — and on  
10 average, 69% higher.<sup>57</sup> The fact that most of those wireless plans require contract  
11 commitments of 1-2 years — and stiff cancellation fees for early termination — plus  
12 charge \$0.35-\$0.45 per minute for additional minutes beyond the plan allotment, further  
13 reduces the substitutability of those wireless offerings for Qwest's wireline residential  
14 exchange service.

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56. See Exhibit DLT-13; as explained at Note 1 *infra*, this rate includes a \$6.00 Utah "CALC" (otherwise known as the Subscriber Line Charge or SLC) for primary residential lines. Effective July 1, 2003, the Utah SLC increased to \$6.50. See Qwest Tariff FCC No. 1, 11<sup>th</sup> revised page 4-11.

57. That is, the average of the eleven wireless plan rates appearing on the first row of Exhibit DLT-13 is \$39.02, which is 69% higher than the \$23.15 in wireline 1FR charges. Taking into account the \$0.50 increase in the SLC (see previous footnote), the \$39.02 average is 65% than a corrected total of \$23.65 in 1FR charges.

1 Finally, there is an underlying difference in the cost structure of CMRS relative to  
2 wireline service that confers a significant artificial competitive advantage to CMRS  
3 providers. Wireline interexchange carriers (“IXCs”) are required to pay access charges  
4 to ILECs in order to originate and terminate long distance calls from and to ILEC end-  
5 user customers. Those access charges have traditionally been set at huge multiples  
6 of cost. However, those access charges do not apply on an equivalent basis to CMRS  
7 providers. Whereas IXCs are required to pay both originating and terminating switched  
8 access charges on *all* long distance calls that are originated by and terminated to LEC  
9 customers, CMRS providers pay no originating access charges for calls placed by their  
10 customers, and pay no terminating access charges for long distance calls to points  
11 within the same “Major Trading Area.” This disparate and discriminatory treatment  
12 undermines confers a significant cost advantage to CMRSs relative to wireline IXCs.  
13 Consequently, any direct comparison of the prices charged today by CMRS providers  
14 versus wireline providers such as Qwest for their bundled offerings (including toll) are  
15 distorted by that artificial cost advantage enjoyed by the CMRS providers.

16

**CLEC bundled service offerings and resold Qwest services do not constrain Qwest's retail residential exchange service price levels.**

Q. Dr. Selwyn, are there other types of services that Mr. Teitzel claims are competing with Qwest's residential service offerings, that in reality do not constrain Qwest's pricing of its residential exchange services?

A. Yes, there are. Similar to his treatment of wireless services, Mr. Teitzel contends that Qwest's residential exchange services are facing competition from service packages offered by CLECs in Utah. Mr. Teitzel describes MCI's "Neighborhood" bundled service offerings, and states that "SBC, Sprint and Z-Tel offer local exchange service to residential customers only as part of a package or bundle."<sup>58</sup> As described by Mr. Teitzel, these packages typically include not only unlimited local calling, but also numerous custom calling features and unlimited intrastate and even interstate toll calling.<sup>59</sup> Not surprisingly, the prices for these packages, which are in the range of \$50 to \$65 per month,<sup>60</sup> are considerably higher than the monthly charges for Qwest's stand-alone residential exchange service, which total about \$24.<sup>61</sup> Mr. Teitzel also

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58. Teitzel (Qwest), at page 20 and page 21, lines 1-2.

59. *Id.*, at pages 20-23. MCI's "Neighborhood Complete" offering also bundles in unlimited toll calling to Canada, as well as voice mail. *Id.*, at page 20.

60. Mr. Teitzel gives the following prices: MCI Neighborhood Complete, \$49.99; Sprint Complete Sense Unlimited, \$64.99; Z-Tel's Unlimited Plan, \$59.99. *Id.*, at pages 20-22.

61. Correcting Mr. Teitzel's \$23.15 estimate of total 1FR charges to reflect the \$0.50  
(continued...)



1 describes some CLEC packages that exclude toll service, but they include four or more  
2 custom calling features and are still priced about \$30 per month.<sup>62</sup>

3  
4 These packages carry prices that are well in excess of the price of Qwest's basic (1FR)  
5 residential exchange service and, as such, do not impose a significant upward  
6 constraint upon Qwest's pricing of its basic residential service offering. Indeed, only  
7 those residential subscribers who place a sufficient number of long distance calls  
8 and/or who subscribe for a sufficient number of vertical features would even consider,  
9 let alone benefit from, the CLEC package pricing. Indeed, if the Commission does not  
10 apply a price ceiling at the prevailing tariff rate for basic residential service, Qwest  
11 could well initiate price increases for its basic 1FR service up to the CLEC bundled  
12 service price umbrella. Moreover, as the dominant carrier, if Qwest increased its  
13 residential dial tone line rate and its fringe competitors were not able to respond by  
14 increasing their supply of alternative services, the effect would be simply to force  
15 Qwest residential subscribers to pay a higher price for the "privilege" of residing in an  
16 exchange that nominally satisfies the statutory "pricing flexibility" conditions.

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61. (...continued)

increase in the Utah SLC effective July 1, 2003 (see page 59 above), the total charges are \$23.65.

62. According to Mr. Teitzel, MCI's Neighborhood Advantage plan is \$28.99, Excel's MyLine Basic Local Service package is \$29.95 per month, and SBC's similar package is \$30.00 per month. *Id.* at pages 20-22.

1 Finally, while Mr. Teitzel does not address resold services as a distinct category, his  
2 inclusion of resold lines as part of the CLEC line counts presented in Exhibit DLT-1  
3 implies that he views resold service as another form of “competition” with Qwest’s retail  
4 services. Whether or not those services are viewed as an alternative marketing  
5 channel for Qwest’s underlying wholesale service (as I explained earlier in my testi-  
6 mony), the direct linkage between Qwest’s retail rate and the resold services discount  
7 means that resold services cannot exert any more pressure on Qwest’s prices than  
8 they already have. That is, if Qwest increases its retail rate by \$2, resellers will  
9 experience a \$1.76 increase in the price they pay (i.e., the \$2 increase in the retail  
10 price less a 12.2% discount), forcing the reseller to increase its price in lock-step with  
11 Qwest’s, so that Qwest can increase its price with little concern about a serious  
12 competitive response. Clearly, resold services do not serve as an effective constraint  
13 on Qwest’s ability to exercise market power.

## RECOMMENDATION

**In view of the lack of effective, price-constraining competition for Qwest's residential exchange services, for any service granted pricing flexibility, the Commission should apply a maximum price cap equal to the corresponding tariffed rate in effect under the price cap regulation rule, R746-352.**

Q. What was the Commission's prior finding concerning adoption of a maximum price level or "price cap" to flexibly-priced residential exchange services?

A. When the Commission previously adopted a maximum price "cap" for certain Qwest residential services (i.e., limited to the areas served by Comcast) in Docket 01-2383-01, it determined that a cap was in the public interest if there was only one competitor in the market, or if there were multiple competitors but they were only resellers of Qwest's services.<sup>63</sup> The Commission also set the caps for each flexibly-priced rate at the tariffed rate in effect at the time of the Commission order.<sup>64</sup>

Q. Given the market conditions and pricing behavior that you have described in your testimony, should the Commission simply apply the same price cap approach used in Docket 01-2383-01 to any services granted pricing flexibility in this proceeding?

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63. Docket Nos. 01-049-82 and 01-2383-01, *Report and Order*, January 28, 2003, at pages 4 and 6.

64. *Id.*, at Ordering Paragraph 6.

1 A. No, that would not be sufficient. As I have demonstrated in my testimony, despite the  
2 presence of *some* competition in the residence service market, Qwest's residential  
3 exchange services are not subject to effective, price-constraining competition at this  
4 time. As a result, Qwest remains the dominant supplier and price-setter in the market,  
5 and would have the opportunity and ability to exercise its market power and reap  
6 supracompetitive profits absent an appropriate regulatory protection. That condition,  
7 and not the issue of whether there is more than one competitor or multiple resellers  
8 operating in an exchange, needs to be the focus of the Commission's determination  
9 as to the necessity for a price cap. In light of the evidence that I have presented that  
10 this market condition exists for the residential exchange market served by Qwest in  
11 aggregate, as well as individually for each of the 44 exchanges at issue, it is essential  
12 that a price cap apply to any Qwest service granted pricing flexibility as a result of the  
13 Company's Petition.

14  
15 Moreover, simply setting the price cap at the current tariffed rate (i.e., at the time the  
16 order is issued) is clearly not sufficient. As I have shown, Qwest has used its existing  
17 pricing flexibility under such a cap only to escape from the operation of the price cap  
18 regulation rule, R746-352, resulting in the perverse and unintended situation that  
19 consumers in purportedly "competitive" exchanges pay more for their Qwest services  
20 than do consumers in the presumably non-competitive exchanges subject to price cap  
21 regulation.

1 In order to prevent this from recurring in any of the Qwest exchanges that the  
2 Commission determines to qualify for pricing flexibility, the price cap should be set  
3 equal to the corresponding tariffed rate in effect under the price cap regulation rule, as  
4 periodically adjusted due to the Commission-approved annual price cap filings. Setting  
5 caps in this manner is not unfair to Qwest (as the Company may claim), because  
6 Qwest itself, and not the Commission, chooses which services' prices are adjusted  
7 under the price cap rule. It will, however, ensure that residential consumers in any  
8 flexibly-priced exchanges will not be "left behind" and miss out on annual price  
9 reductions that might be occurring due to operation of the price cap regulation rule, as  
10 I have shown has been occurring for business customers under Qwest's exercise of  
11 its existing pricing flexibility.

12  
13 Q. Does this conclude your direct testimony at this time?

14  
15 A. Yes, it does.

## **Attachment 1**

### **Statement of Qualifications**

## **Statement of Qualifications**

### **LEE L. SELWYN**

Dr. Lee L. Selwyn has been actively involved in the telecommunications field for more than twenty-five years, and is an internationally recognized authority on telecommunications regulation, economics and public policy. Dr. Selwyn founded the firm of Economics and Technology, Inc. in 1972, and has served as its President since that date. He received his Ph.D. degree from the Alfred P. Sloan School of Management at the Massachusetts Institute of Technology. He also holds a Master of Science degree in Industrial Management from MIT and a Bachelor of Arts degree with honors in Economics from Queens College of the City University of New York.

Dr. Selwyn has testified as an expert on rate design, service cost analysis, form of regulation, and other telecommunications policy issues in telecommunications regulatory proceedings before some forty state commissions, the Federal Communications Commission and the Canadian Radio-television and Telecommunications Commission, among others. He has appeared as a witness on behalf of commercial organizations, non-profit institutions, as well as local, state and federal government authorities responsible for telecommunications regulation and consumer advocacy.

He has served or is now serving as a consultant to numerous state utilities commissions including those in Arizona, Minnesota, Kansas, Kentucky, the District of Columbia, Connecticut, California, Delaware, Maine, Massachusetts, New Hampshire, Vermont, New Mexico, Wisconsin and Washington State, the Office of Telecommunications Policy (Executive Office of the President), the National Telecommunications and Information Administration, the Federal Communications Commission, the Canadian Radio-television and Telecommunications Commission, the United Kingdom Office of Telecommunications, and the Secretaria de Comunicaciones y Transportes of the Republic of Mexico. He has also served as an advisor on telecommunications regulatory matters to the International Communications Association and the Ad Hoc Telecommunications Users Committee, as well as to a number of major corporate telecommunications users, information services providers, paging and cellular carriers, and specialized access services carriers.

Dr. Selwyn has presented testimony as an invited witness before the U.S. House of Representatives Subcommittee on Telecommunications, Consumer Protection and Finance and before the U.S. Senate Judiciary Committee, on subjects dealing with restructuring and deregulation of portions of the telecommunications industry.

In 1970, he was awarded a Post-Doctoral Research Grant in Public Utility Economics under a program sponsored by the American Telephone and Telegraph Company, to conduct research on the economic effects of telephone rate structures upon the computer time sharing industry. This work was conducted at Harvard University's Program on Technology and Society, where he was appointed as a Research Associate. Dr. Selwyn was also a member of the faculty at the College of Business Administration at Boston University from 1968 until 1973, where he taught courses in economics, finance and management information systems.

Dr. Selwyn has published numerous papers and articles in professional and trade journals on the subject of telecommunications service regulation, cost methodology, rate design and pricing policy. These have included:

“Taxes, Corporate Financial Policy and Return to Investors”

*National Tax Journal*, Vol. XX, No.4, December 1967.

“Pricing Telephone Terminal Equipment Under Competition”

*Public Utilities Fortnightly*, December 8, 1977.

“Deregulation, Competition, and Regulatory Responsibility in the Telecommunications Industry”

*Presented at the 1979 Rate Symposium on Problems of Regulated Industries - Sponsored by: The American University, Foster Associates, Inc., Missouri Public Service Commission, University of Missouri-Columbia, Kansas City, MO, February 11 - 14, 1979.*

“Sifting Out the Economic Costs of Terminal Equipment Services”

*Telephone Engineer and Management*, October 15, 1979.

“Usage-Sensitive Pricing” (with G. F. Borton)

(a three part series)

*Telephony*, January 7, 28, February 11, 1980.

“Perspectives on Usage-Sensitive Pricing”

*Public Utilities Fortnightly*, May 7, 1981.

“Diversification, Deregulation, and Increased Uncertainty in the Public Utility Industries”

*Comments Presented at the Thirteenth Annual Conference of the Institute of Public Utilities, Williamsburg, VA - December 14 - 16, 1981.*

“Local Telephone Pricing: Is There a Better Way?; The Costs of LMS Exceed its Benefits: a Report on Recent U.S. Experience.”

*Proceedings of a conference held at Montreal, Quebec - Sponsored by*

*Canadian Radio-Television and Telecommunications Commission and The Centre for the Study of Regulated Industries, McGill University, May 2 - 4, 1984.*

“Long-Run Regulation of AT&T: A Key Element of A Competitive Telecommunications Policy”

*Telematics*, August 1984.

“Is Equal Access an Adequate Justification for Removing Restrictions on BOC Diversification?”



*Presented at the Institute of Public Utilities Eighteenth Annual Conference, Williamsburg, VA - December 8 - 10, 1986.*

**“Market Power and Competition Under an Equal Access Environment”**

*Presented at the Sixteenth Annual Conference, “Impact of Deregulation and Market Forces on Public Utilities: The Future Role of Regulation”*

*Institute of Public Utilities, Michigan State University, Williamsburg, VA - December 3 - 5, 1987.*

**“Contestable Markets: Theory vs. Fact”**

*Presented at the Conference on Current Issues in Telephone Regulations: Dominance and Cost Allocation in Interexchange Markets - Center for Legal and Regulatory Studies Department of Management Science and Information Systems - Graduate School of Business, University of Texas at Austin, October 5, 1987.*

**“The Sources and Exercise of Market Power in the Market for Interexchange Telecommunications Services”**

*Presented at the Nineteenth Annual Conference - “Alternatives to Traditional Regulation: Options for Reform” - Institute of Public Utilities, Michigan State University, Williamsburg, VA, December, 1987.*

**“Assessing Market Power and Competition in The Telecommunications Industry: Toward an Empirical Foundation for Regulatory Reform”**

*Federal Communications Law Journal, Vol. 40 Num. 2, April 1988.*

**“A Perspective on Price Caps as a Substitute for Traditional Revenue Requirements Regulation”**

*Presented at the Twentieth Annual Conference - “New Regulatory Concepts, Issues and Controversies” - Institute of Public Utilities, Michigan State University, Williamsburg, VA, December, 1988.*

**“The Sustainability of Competition in Light of New Technologies” (with D. N. Townsend and P. D. Kravtin)**

*Presented at the Twentieth Annual Conference - Institute of Public Utilities Michigan State University, Williamsburg, VA, December, 1988.*

**“Adapting Telecom Regulation to Industry Change: Promoting Development Without Compromising Ratepayer Protection” (with S. C. Lundquist)**

*IEEE Communications Magazine, January, 1989.*

**“The Role of Cost Based Pricing of Telecommunications Services in the Age of Technology and Competition”**

*Presented at National Regulatory Research Institute Conference, Seattle, July 20, 1990.*

“A Public Good/Private Good Framework for Identifying POTS Objectives for the Public Switched Network” (with Patricia D. Kravtin and Paul S. Keller)  
Columbus, Ohio: *National Regulatory Research Institute*, September 1991.

“Telecommunications Regulation and Infrastructure Development: Alternative Models for the Public/Private Partnership”

*Prepared for the Economic Symposium of the International Telecommunications Union Europe Telecom '92 Conference, Budapest, Hungary, October 15, 1992.*

“Efficient Infrastructure Development and the Local Telephone Company's Role in Competitive Industry Environment” *Presented at the Twenty-Fourth Annual Conference, Institute of Public Utilities, Graduate School of Business, Michigan State University, “Shifting Boundaries between Regulation and Competition in Telecommunications and Energy”, Williamsburg, VA, December 1992.*

“Measurement of Telecommunications Productivity: Methods, Applications and Limitations” (with Françoise M. Clottes)

*Presented at Organisation for Economic Cooperation and Development, Working Party on Telecommunication and Information Services Policies, '93 Conference “Defining Performance Indicators for Competitive Telecommunications Markets”, Paris, France, February 8-9, 1993.*

“Telecommunications Investment and Economic Development: Achieving efficiency and balance among competing public policy and stakeholder interests”

*Presented at the 105th Annual Convention and Regulatory Symposium, National Association of Regulatory Utility Commissioners, New York, November 18, 1993.*

“The Potential for Competition in the Market for Local Telephone Services” (with David N. Townsend and Paul S. Keller)

*Presented at the Organization for Economic Cooperation and Development Workshop on Telecommunication Infrastructure Competition, December 6-7, 1993.*

“Market Failure in Open Telecommunications Networks: Defining the new natural monopoly,” *Utilities Policy*, Vol. 4, No. 1, January 1994.

*The Enduring Local Bottleneck: Monopoly Power and the Local Exchange Carriers*, (with Susan M. Gately, et al) a report prepared by ETI and Hatfield Associates, Inc. for AT&T, MCI and CompTel, February 1994.

*Commercially Feasible Resale of Local Telecommunications Services: An Essential Step in the Transition to Effective Local Competition*, (Susan M. Gately, et al) a report prepared by ETI for AT&T, July 1995.

“Efficient Public Investment in Telecommunications Infrastructure”

*Land Economics*, Vol 71, No.3, August 1995.

*Funding Universal Service: Maximizing Penetration and Efficiency in a Competitive Local Service Environment*, Lee L. Selwyn with Susan M. Baldwin, under the direction of Donald Shephard, A Time Warner Communications Policy White Paper, September 1995.

*Stranded Investment and the New Regulatory Bargain*, Lee L. Selwyn with Susan M. Baldwin, under the direction of Donald Shephard, A Time Warner Communications Policy White Paper, September 1995

“Market Failure in Open Telecommunications Networks: Defining the new natural monopoly,” in *Networks, Infrastructure, and the New Task for Regulation*, by Werner Sichel and Donal L. Alexander, eds., University of Michigan Press, 1996.

*Establishing Effective Local Exchange Competition: A Recommended Approach Based Upon an Analysis of the United States Experience*, Lee L. Selwyn, paper prepared for the Canadian Cable Television Association and filed as evidence in Telecom Public Notice CRTC 95-96, Local Interconnection and Network Component, January 26, 1996.

*The Cost of Universal Service, A Critical Assessment of the Benchmark Cost Model*, Susan M. Baldwin with Lee L. Selwyn, a report prepared by Economics and Technology, Inc. on behalf of the National Cable Television Association and submitted with Comments in FCC Docket No. CC-96-45, April 1996.

*Economic Considerations in the Evaluation of Alternative Digital Television Proposals*, Lee L. Selwyn (as Economic Consultant), paper prepared for the Computer Industry Coalition on Advanced Television Service, filed with comments in FCC MM Docket No. 87-268, In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service, July 11, 1996.

*Assessing Incumbent LEC Claims to Special Revenue Recovery Mechanisms: Revenue opportunities, market assessments, and further empirical analysis of the "Gap" between embedded and forward-looking costs*, Patricia D. Kravtin and Lee L. Selwyn, In the Matter of Access Charge Reform, in CC Docket No. 96-262, January 29, 1997.

*The Use of Forward-Looking Economic Cost Proxy Models*, Susan M. Baldwin and Lee L. Selwyn, Economics and Technology, Inc., February 1997.

*The Effect of Internet Use On The Nation's Telephone Network*, Lee L. Selwyn and Joseph W. Laszlo, a report prepared for the Internet Access Coalition, July 22, 1997.

*Regulatory Treatment of ILEC Operations Support Systems Costs*, Lee L. Selwyn, Economics and Technology, Inc., September 1997.

*The "Connecticut Experience" with Telecommunications Competition: A Case in Getting it Wrong*, Lee L. Selwyn, Helen E. Golding and Susan M. Gately, Economics and Technology, Inc., February 1998.

*Where Have All The Numbers Gone?: Long-term Area Code Relief Policies and the Need for Short-term Reform*, prepared by Economics and Technology, Inc. for the Ad Hoc Telecommunications Users Committee, International Communications Association, March 1998, second edition, June 2000.

*Broken Promises: A Review of Bell Atlantic-Pennsylvania's Performance Under Chapter 30*, Lee L. Selwyn, Sonia N. Jorge and Patricia D. Kravtin, Economics and Technology, Inc., June 1998.

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*Bringing Local Telephone Competition to Massachusetts*, Lee L. Selwyn and Helen E. Golding, prepared for The Massachusetts Coalition for Competitive Phone Service, January 2000.

*Subsidizing the Bell Monopolies: How Government Welfare Programs are Undermining Telecommunications Competition*, Lee L. Selwyn, April 2002.

Dr. Selwyn has been an invited speaker at numerous seminars and conferences on telecommunications regulation and policy, including meetings and workshops sponsored by the National Telecommunications and Information Administration, the National Association of Regulatory Utility Commissioners, the U.S. General Services Administration, the Institute of Public Utilities at Michigan State University, the National Regulatory Research Institute at Ohio State University, the Harvard University Program on Information Resources Policy, the Columbia University Institute for Tele-Information, the International Communications Association, the Telecommunications Association, the Western Conference of Public Service Commissioners, at the New England, Mid-America, Southern and Western regional PUC/PSC conferences, as well as at numerous conferences and workshops sponsored by individual regulatory agencies.